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Supplementary appendix

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Supplementary appendix

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Table S1. Literature search strategy

Set#	Search term
S21	(S19 OR S20) and pd(2020-2021)
S20	S18 not (animal(yes) or EMB.EXACT("nonhuman"))
S19	S18 and human(yes)
S18	S16 AND S17
S17	S6 OR S7 OR S8 OR S10 OR S11
S16	S1 OR S2 OR S3 OR S4 OR S5 OR S9 OR S12 OR S13 OR S14 OR S15
S15	ti,ab(("still birth*" or stillbirth* or "intra uterine death*" or "intrauterine death*" or "intrauterine demise*" or "intra uterine demise*" or "intra uterine loss*" or "intrauterine loss*" or "intra uterine mortalit[*3]" or "intrauterine mortalit[*3]" or "f[*1]etal death*" or "f[*1]etal demise*" or "f[*1]etal loss[*2]" or "f[*1]etal mortalit[*3]" or "perinatal death*" or "peri natal death*" or "peri natal demise*" or "perinatal demise*" or "perinatal loss[*2]" or "peri natal loss[*2]" or "perinatal mortalit[*3]" or "peri natal mortalit[*3]")) near/3 (screen* or predict* or risk[*1]))
S14	EMB.EXACT("stillbirth") OR EMB.EXACT("fetus death") OR EMB.EXACT("perinatal death")
S13	tio,ab(((fetus[*2] or foetus[*2] or fetal[*2] or foetal[*2] or "in utero" or intrauterine or "intra uterine" or fetalis or foetalis) near/5 ("growth restriction" or "growth retardation")) or iugr or "small for gestational age" or "congenital hypotroph[*3]"))
S12	tio,ab("caesarean section" or "instrumental delivery" or "operative birth" or "operative delivery" or "forceps" or "assisted delivery" or "induction of labour" or "intrapartum care")
S11	tio,ab("COVID-19" or "SARS-CoV-2" or "2019-nCoV" or "n-CoV" and "coronavirus")
S10	EMB.EXACT.EXPLODE("CORONAVIRIDAE INFECTION") OR EMB.EXACT.EXPLODE("CORONAVIRUS INFECTIONS")
S9	tio,ab("antenatal care" or "prenatal care" or "pregnancy outcomes" or "obstetric complications" or "pregnancy complications" or "perinatal outcomes" or "maternal death" or "maternal mortality" or "pregnancy loss" or "fetal death" or "miscarriage" or "abortion" or "termination of pregnancy" or "preterm birth" or "preterm labour" or "premature birth" or "premature labour" or "stillbirth" or "intrauterine death" or "neonatal death" or "newborn death" or "perinatal mortality" or "perinatal death")

S8	(exp coronavirus/ or coronavirus.mp. or corona virus) and (wuhan or beijing or shanghai or 2019-nCoV or nCovor or COVID-19 or SARS-CoV-2)
S7	('coronaviridae'/exp OR coronavirus OR 'corona virus') AND (wuhan OR 'beijing'/exp OR beijing OR shanghai OR '2019 ncov' OR ncover OR 'covid 19' OR 'sars cov 2')
S6	MESH.EXACT.EXPLODE("Coronavirus infections")
S5	MESH.EXACT.EXPLODE("Pregnancy") OR MESH.EXACT.EXPLODE("Pregnancy Trimesters") OR MESH.EXACT("Pregnancy Complications") OR MESH.EXACT("Pregnant Women")
S4	EMB.EXACT.EXPLODE("pregnancy") OR EMB.EXACT("pregnancy complication") OR EMB.EXACT("pregnancy disorder") OR EMB.EXACT("pregnant woman")
S3	MESH.EXACT("Prenatal Care")

Table S2. A list of the excluded studies and reasons for their exclusion

Studies	Exclusion Reason
Abdela, SG, Berhanu AB, Ferede LM, van Griensven, J. Essential Healthcare Services in the Face of COVID-19 Prevention: Experiences from a Referral Hospital in Ethiopia. <i>The American Journal of Tropical Medicine and Hygiene</i> . 2020;103(3): 1198-1200.	Wrong outcomes (resource use)
Abdelbadee, AY, Abbas, AM. Impact of COVID-19 on reproductive health and maternity services in low resource countries. <i>The European journal of contraception & reproductive health care: the official journal of the European Society of Contraception</i> . 2020; 25(5): 402-404.	Wrong study design
Abujilban S, Mrayan L, Hamaideh S, Obeisat S, Damra J. Intimate Partner Violence Against Pregnant Jordanian Women at the Time of COVID-19 Pandemic's Quarantine. <i>Journal of interpersonal violence</i> . 2021;():886260520984259.	Wrong outcomes (domestic violence)
Ahlers-Schmidt CR, Hervey AM, Neil T, Kuhlmann S, Kuhlmann Z. Concerns of women regarding pregnancy and childbirth during the COVID-19 pandemic. <i>Patient Education and Counseling</i> . 2020;103(12):2578-2582	No comparison group
Aksoy Derya Y, Altiparmak S, Akça E, Gökbulut N, Yilmaz, AN. Pregnancy and birth planning during COVID-19: The effects of tele-education offered to pregnant women on prenatal distress and pregnancy-related anxiety. To be published in <i>Midwifery</i> . [Preprint] 2020. Available from: https://doi.org/10.1016/j.midw.2020.102877	Wrong outcomes (resource use)
Aksoy Derya Y, Altiparmak S, Akça E, Gökbulut N, Yilmaz, AN. Pregnancy and birth planning during COVID-19: The effects of tele-education offered to pregnant women on prenatal distress and pregnancy-related anxiety. To be published in <i>Midwifery</i> . [Preprint] 2020. Available from: https://doi.org/10.1016/j.midw.2020.102877	Wrong outcomes (resource use) - duplicate
Alan S, Vurgec BA, Cevik A, Gozuyesil E, Surucu, SG. The effects of COVID-19 pandemic on pregnant women: Perceived stress, social support and sleep quality. <i>Yonago Acta Medica</i> . 2020;63(4):360-367. doi:10.33160/yam.2020.11.016	No comparison group

Albert L, Capel I, García-Sáez G, Martín-Redondo P, Hernando ME, Rigla M. Managing gestational diabetes mellitus using a smartphone application with artificial intelligence (SineDie) during the COVID-19 pandemic: Much more than just telemedicine. <i>Diabetes research and clinical practice</i> . 2020;169():108396. doi:10.1016/j.diabres.2020.108396	Wrong outcomes (resource use)
Almeida M, Shrestha AD, Stojanac D, Miller LJ. The impact of the COVID-19 pandemic on women's mental health. <i>Archives of women's mental health</i> . 2020. doi:0.1007/s00737-020-01092-2	Wrong study design
Anderson TS, Stevens JP, Pinheiro A, Li S, Herzig SJ. Hospitalizations for Emergent Medical, Surgical, and Obstetric Conditions in Boston During the COVID-19 Pandemic. <i>Journal of general internal medicine</i> . 2020;35(10): 3129-3132.	Wrong outcomes (resource use)
Andrade C. COVID-19 and lockdown: Delayed effects on health. <i>Indian Journal of Psychiatry</i> . 2020;62(3):247-249.	Wrong study design
Arun Babu T, Sharmila V, Vishnu Bhat B. Curious scenario of changes in incidence of preterm births during COVID-19 pandemic. Pointers for future research? <i>European Journal of Obstetrics and Gynecology and Reproductive Biology</i> . 2020;253():333-334.	Wrong study design
Aryal S, Pant SB. Maternal mental health in Nepal and its prioritization during COVID-19 pandemic: Missing the obvious. <i>Asian Journal of Psychiatry</i> . 2020;54(). Available at: https://doi.org/10.1016/j.ajp.2020.102281 .	Wrong study design
Assefa KT, Gashu AW, Mulualem TD. The impact of COVID-19 infection on maternal and reproductive health care services in governmental health institutions of Dessie town, North-East Ethiopia, 2020 G.C. medRxiv. 2020:2020.09.20.20198259. doi:10.1101/2020.09.20.20198259	Preprint (published version not available)
Bamber JH, Lucas DN. COVID-19 and access to labour epidural analgesia in UK hospitals. <i>Anaesthesia</i> . 2020;75(8):1119-1120.	Wrong study design
Barišić A. Conceived in the covid-19 crisis: impact of maternal stress and anxiety on fetal neurobehavioral development. <i>Journal of psychosomatic obstetrics and</i>	Wrong study design

<i>gynaecology</i> . 2020;41(3):246.	
Berthelot N, Lemieux R, Garon-Bissonnette J, Drouin-Maziade C; Martel E, Maziade M. Uptrend in distress and psychiatric symptomatology in pregnant women during the coronavirus disease 2019 pandemic. <i>Acta Obstetricia et Gynecologica Scandinavica</i> . 2020; 99:848–855.	Duplicate
Bhatia K, Columb MO. COVID-19 pandemic reduces general anaesthesia rates for caesarean section. <i>Anaesthesia</i> . 2020. doi:10.1111/anae.15368	Wrong study design
Biviá-Roig G, La Rosa VL, Gómez-Tébar M, Serrano-Raya L, Amer-Cuenca JJ, Caruso S, et al. Analysis of the Impact of the Confinement Resulting from COVID-19 on the Lifestyle and Psychological Wellbeing of Spanish Pregnant Women: An Internet-Based Cross-Sectional Survey. <i>International journal of environmental research and public health</i> . 2020; 17(16): 5933.	Wrong study design
Bo HX, Yang Y, Chen J et al. Prevalence of depressive symptoms among Chinese pregnant and postpartum women during the COVID-19 pandemic. <i>Psychosomatic medicine</i> . 2020. doi:10.1097/PSY.0000000000000904	No comparison group
Bradfield Z, Wynter K, Hauck Y, Vasilevski V, Kuliukas L, Wilson A, et al. Experiences of receiving and providing maternity care during the COVID-19 Pandemic in Australia: a five-cohort cross-sectional comparison. [Preprint] 2020. Available from: https://doi.org/10.1101/2020.09.22.20199331	No comparison group
Burgess A, Breman RB, Bradley D, Dada S, Burcher P. Pregnant Women's Reports of the Impact of COVID-19 on Pregnancy, Prenatal Care, and Infant Feeding Plans. <i>The American journal of maternal child nursing</i> . 2021;46(1):21-29.	No comparison group
Caparros-Gonzalez RA, Luque-Fernández MA. Mental health in the perinatal period and maternal stress during the Covid-19 pandemic: influence on fetal development. <i>Revista española de salud pública</i> . 2020;94():e1-e2	Wrong outcomes (fetal development)

Ceulemans M, Hompes T, Foulon V. Mental health status of pregnant and breastfeeding women during the COVID-19 pandemic: A call for action. <i>International Journal of Gynecology and Obstetrics</i> . 2020;151(1):146-147.	No comparison group
Ceulemans M, Verbakel JY, Van Calsteren K, Eerdeken A, Allegaert K, Foulon V. SARS-CoV-2 Infections and Impact of the COVID-19 Pandemic in Pregnancy and Breastfeeding: Results from an Observational Study in Primary Care in Belgium. <i>International journal of environmental research and public health</i> . 2020;17(18). Available from: https://doi.org/10.3390/ijerph17186766 .	No comparison group
Chasson M, Taubman-Ben-Ari O, Abu-Sharkia S. Jewish and Arab pregnant women's psychological distress during the COVID-19 pandemic: the contribution of personal resources Ethnicity & health 2020;():1-13. Available from: https://doi.org/10.1080/13557858.2020.1815000	No comparison group
Chen M, Liu X, Zhang J. Characteristics of online medical care consultation for pregnant women during the COVID-19 outbreak: Cross-sectional study. <i>BMJ Open</i> . 2020;10(11). Doi:10.1136/bmjopen-2020-043461	Wrong outcomes (resource use)
Codina M, Corcoy R, Goya MM. Update of the hyperglycemia Gestational diagnosis during the COVID-19 pandemic. <i>Endocrinologia, diabetes y nutricion</i> . 2020;67(8):545-552.	Wrong study design
Coombe J, Kong F, Bittleston H, Williams H, Tomnay J, Vaisey A, et al. The impact of COVID-19 on the reproductive health of people living in Australia: findings from an online survey. [Preprint] 2020. Available from: https://doi.org/10.1101/2020.08.10.20172163	Wrong outcomes (sexual and reproductive health)
Corbett GA, Milne SJ, Hehir MP, Lindow SW, O'connell MP. Health anxiety and behavioural changes of pregnant women during the COVID-19 pandemic. <i>European Journal of Obstetrics and Gynecology and Reproductive Biology</i> . 2020;249():96-97.	No comparison group
Dagklis T, Tsakiridis I, Mamopoulos A, Athanasiadis A, Pearson R, Papazisis G. Impact of the COVID-19 lockdown on antenatal mental health in Greece. <i>Psychiatry and</i>	No comparison group

clinical neurosciences. 2020;74(11):616-617.	
Davenport MH, Meyer S, Meah VL, Strynadka, MC, Khurana R. Moms Are Not OK: COVID-19 and Maternal Mental Health. <i>Frontiers in Global Women's Health</i> . 2020;1(1). Available from: doi: 10.3389/fgwh.2020.00001.	Wrong study design
Debrabandere ML, Farabaugh DC, Giordano C. A Review on Mode of Delivery during COVID-19 between December 2019 and April 2020. <i>American Journal of Perinatology</i> . 2020. doi:0.1055/s-0040-1721658	Wrong study design
Dib S, Rougeaux E, Vázquez-Vázquez A, Wells JCK, Fewtrell M. The impact of the COVID-19 lockdown on maternal mental health and coping in the UK: Data from the COVID-19 New Mum Study. <i>International Journal of Gynecology & Obstetrics</i> . 2020;151(3): 407-414. Available from: https://doi.org/10.1002/ijgo.13397 .	No comparison group
Din YM, Munir SI, Razzaq SA, Ahsan A, Maqbool S, Ahmad O. Risk Perception of COVID-19 among Pregnant Females. <i>Annals of King Edward Medical University</i> . 2020;26():176-180.	No comparison group
Dodesini AR, Caffi A, Spada MS, Trevisan R. Resilience in pregnant women with pre-gestational diabetes during COVID-19 pandemic: the experience of the Papa Giovanni XXIII Hospital in Bergamo, Italy. <i>Acta Diabetologica</i> . 2020. doi:10.1007/s00592-020-01640-3	No comparison group
Dong H, Hu R, Lu C, Huang D, Cui D, Huang G, et al. Investigation on the mental health status of pregnant women in China during the Pandemic of COVID-19. <i>Archives of gynecology and obstetrics</i> . 2020. Available from: https://doi.org/10.1007/s00404-020-05805-x	Wrong comparator
Du L, Gu YB, Cui MQ, Li WX, Wang J, Zhu LP, et al. Investigation on demands for antenatal care services among 2002 pregnant women during the epidemic of COVID-19 in Shanghai. <i>Zhonghua fu chan ke za zhi</i> . 2020;55(3):160-165.	Insufficient data

Durankuş F, Aksu E. Effects of the COVID-19 pandemic on anxiety and depressive symptoms in pregnant women: a preliminary study. <i>The Journal of Maternal-Fetal & Neonatal Medicine</i> . 2020. Available from: https://doi.org/10.1080/14767058.2020.1763946 .	No comparison group
Effati-Daryani F, Zarei S, Mohammadi A, Hemmati E, Ghasemi Yngyknd S, Mirghafourvand M. Depression, stress, anxiety and their predictors in Iranian pregnant women during the outbreak of COVID-19. <i>BMC psychology</i> . 2020;8(1):99.	No comparison group
Elito J, Araujo Junior E. Medical Treatment for Ectopic Pregnancy during the COVID-19 Pandemic. <i>Revista brasileira de ginecologia e obstetricia: revista da Federacao Brasileira das Sociedades de Ginecologia e Obstetricia</i> 2020;42(12):849-850. doi:10.1055/s-0040-1718438	Wrong study design
Farewell CV, Jewell J, Walls J, Leiferman JA. A Mixed-Methods Pilot Study of Perinatal Risk and Resilience During COVID-19. <i>Journal of primary care & community health</i> . 2020;11. Available from: https://doi.org/10.1177/2150132720944074	No comparison group
Farrell T, Reagu S, Mohan S, Elmidany R, Qaddoura F, Ahmed EE, et al. The impact of the COVID-19 pandemic on the perinatal mental health of women. <i>Journal of perinatal medicine</i> . 2020;48(9). Available from: https://doi.org/10.1515/jpm-2020-0415	No comparison group
Filice C, Poma GL, Above E, Dellafiore C, Ferrari G, et al. Is the fear of COVID-19 infection the same in all subjects? <i>International Journal of Infectious Diseases</i> . 2020;97:331-333.	Wrong outcomes (resource use)
Futterman I, Rosenfeld E, Toaff M, Boucher T, Golden-Espinal S, Evans K, et al. Addressing Disparities in Prenatal Care via Telehealth During COVID-19: Prenatal Satisfaction Survey in East Harlem. <i>American journal of perinatology</i> . 2020. Available from: doi: 10.1055/s-0040-1718695.	Wrong outcomes (resource use)
Ghesquière L, Garabedian C, Drumez E, Lemaître M, Cazaubiel M, Bengler C, et al. Effects of COVID-19 pandemic lockdown on gestational diabetes mellitus: A retrospective study. <i>Diabetes & Metabolism</i> . 2020. Available from:	Wrong outcomes (diabetic control in pregnancy)

https://doi.org/10.1016/j.diabet.2020.09.008	
Gildner TE, Laugier EJ, Thayer ZM. Exercise routine change is associated with prenatal depression scores during the COVID-19 pandemic among pregnant women across the United States. <i>PloS one</i> . 2020;15(12):e0243188. doi: 10.1371/journal.pone.0243188	No comparison group
Gildner TE, Thayer ZN. Birth plan alterations among American women in response to COVID-19. <i>Health Expectations</i> . 2020; 23(4):969-97.	Wrong outcomes (resource use)
Handley SC, Mullin AM, Elovitz MA et al. Changes in Preterm Birth Phenotypes and Stillbirth at 2 Philadelphia Hospitals during the SARS-CoV-2 Pandemic, March-June 2020. <i>JAMA</i> . 2020. doi:10.1001/jama.2020.20991	Duplicate
Haruna M, Nishi D. Perinatal mental health and COVID-19 in Japan. <i>Psychiatry and Clinical Neurosciences</i> . 2020;74(9):502-503	No comparison group
Hashmi N, Ullah I, El Hayek S, Shakoor N. The impact of the COVID-19 pandemic on mental health and service delivery during pregnancy: Role of telepsychiatry. <i>Asian Journal of Psychiatry</i> . 2020;54. doi:0.1016/j.ajp.2020.102461	Wrong study design
He Z, Chiu WT, Wu H, Ming WK. PMH4 The Psychological and Behavioral Responses to Covid-19 Epidemic in Pregnant Women in China: A Nationwide Survey. <i>Value in Health Regional Issues</i> . 2020;22:S62.	No comparison group
Hedermann G, Hedley PL, Bækvad-Hansen M et al. Danish premature birth rates during the COVID-19 lockdown. <i>Archives of disease in childhood. Fetal and neonatal edition</i> . 2021;106(1):93-95. doi:10.1136/archdischild-2020-319990	Duplicate
Hedermann G, Hedley PL, Bækvad-Hansen M, Hjalgrim H, Rostgaard K, Poorisrisak P, et al. Danish premature birth rates during the COVID-19 lockdown. <i>Archives of disease in childhood. Fetal and neonatal edition</i> . Epub ahead of print: (2020). Available from: doi:10.1136/archdischild-2020-3199902020	Pre-print (published version available)

Hessami K, Romanelli C, Chiurazzi M, Cozzolino M. COVID-19 pandemic and maternal mental health: a systematic review and meta-analysis. <i>The Journal of Maternal-Fetal & Neonatal Medicine</i> . 2020. Available from: https://doi.org/10.1080/14767058.2020.1843155	Wrong study design
Holcomb D, Faucher MA, Bouzid J, Quint-Bouzid M, Nelson DB, Duryea E. Patient Perspectives on Audio-Only Virtual Prenatal Visits Amidst the Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Pandemic. <i>Obstetrics & Gynecology</i> . 2020;136(2):317-322.	Wrong outcomes (resource use)
Ifdil I, Fadli RP, Gusmaliza B, Putri YE. Mortality and psychological stress in pregnant and postnatal women during COVID-19 outbreak in West Sumatra, Indonesia. <i>Journal of psychosomatic obstetrics and gynaecology</i> . 2020;41(4):1-2.	Insufficient data
Issa BG, Becker L, Cheer K, Kelly A. The diagnosis and management of gestational diabetes mellitus in the context of the COVID-19 pandemic. <i>Diabetes care</i> . 2020;43:1433–1434.	Wrong comparator
Jeganathan S, Prasannan L, Blitz MJ, Vohra N, Rochelson B, Meirowitz N. Adherence and acceptability of telehealth appointments for high-risk obstetrical patients during the coronavirus disease 2019 pandemic. <i>American Journal of Obstetrics and Gynecology MFM</i> . 2020;2(4). Available from: DOI: https://doi.org/10.1016/j.ajogmf.2020.100233	Wrong outcomes (resource use)
Jiang H, Jin L, Qian X et al. The mental health status and approaches of accessing antenatal care information among pregnant women during COVID-19 epidemic : a cross-sectional study in China. <i>Journal of medical Internet research</i> . 2020. doi:10.2196/18722	Preprint (published version not available)
Jungari S. Maternal mental health in India during COVID-19. <i>Public Health</i> 2020;185:97-98.	Wrong study design
Justman N, Shahak G, Gutzeit O, Ben Zvi D, Ginsberg Y, Solt I, et al. Lockdown with a Price: The impact of the COVID-19 Pandemic on Prenatal Care and Perinatal Outcomes in a Tertiary Care Center. <i>The Israel Medical Association journal: IMAJ</i> .	Duplicate

2020;9(22):467-471.	
Justman N, Shahak G, Gutzeit O, Ben Zvi D, Ginsberg Y, Solt I, et al. Lockdown with a Price: The impact of the COVID-19 Pandemic on Prenatal Care and Perinatal Outcomes in a Tertiary Care Center. The Israel Medical Association journal: IMAJ. 2020;9(22):4	Duplicate
Kahyaoglu Sut H, Kucukkaya B. Anxiety, depression, and related factors in pregnant women during the COVID-19 pandemic in Turkey: A web-based cross-sectional study. <i>Perspectives in psychiatric care</i> . 2020. Available from: https://doi.org/10.1111/ppc.12627	No comparison group
Karavadra B, Stockl A, Prosser-Snelling E, Simpson P, Morris E. Women's perceptions of COVID-19 and their healthcare experiences: A qualitative thematic analysis of a national survey of pregnant women in the United Kingdom. <i>BMC Pregnancy and Childbirth</i> . 2020;20(1). Available from: https://doi.org/10.1186/s12884-020-03283-2	Wrong outcomes (resource use)
Karkee R, Morgan A. Providing maternal health services during the COVID-19 pandemic in Nepal. <i>The Lancet Global health</i> . 2020;8(10):e1243-e1244.	Wrong study design
Kassaw C, Pandey D. The prevalence of general anxiety disorder and its associated factors among women's attending at the perinatal service of Dilla University referral hospital, Dilla town, Ethiopia, April, 2020 in Covid pandemic. <i>Heliyon</i> . 2020;6(11):e05593. doi:10.1016/j.heliyon.2020.e05593	No comparison group
Kasuga Y, Saisho Y, Ikenoue S, Ochiai D, Tanaka M. A new diagnostic strategy for gestational diabetes during the COVID-19 pandemic for the Japanese population. <i>Diabetes/Metabolism Research and Reviews</i> . 2020;36(8) doi:10.1002/dmrr.3351	Wrong outcomes (detection of gestational diabetes)
Kasuga Y, Tanaka M, Ochiai D. Preterm delivery and hypertensive disorder of pregnancy were reduced during the COVID-19 pandemic: A single hospital-based study. <i>Journal of Obstetrics and Gynaecology Research</i> . 2020.	Duplicate

doi: https://doi.org/10.1111/jog.14518	
Khalil A, von Dadelszen P, Kalafat E, Sebghati M, Ladhani S, Ugwumadu A, et al. Change in obstetric attendance and activities during the COVID-19 pandemic. <i>The Lancet Infectious Diseases</i> . 2020. Available from: https://doi.org/10.1016/S1473-3099(20)30779-9	Wrong outcomes (resource use)
Kotabagi P, Nauta M, Fortune L, Yoong W. COVID-19 positive mothers are not more anxious or depressed than non COVID pregnant women during the pandemic: A pilot case-control comparison. <i>European journal of obstetrics, gynecology, and reproductive biology</i> . 2020;252():615-616.	Wrong study design
Lebel C, MacKinnon A, Bagshawe M, Tomfohr-Madsen L, Giesbrecht G. Elevated depression and anxiety symptoms among pregnant individuals during the COVID-19 pandemic. <i>Journal of Affective Disorders</i> . 2020;277:5-13.	No comparison group
Liang P, Wang Y, Shi S, Liu Y, Xiong R. Prevalence and factors associated with postpartum depression during the COVID-19 pandemic among women in Guangzhou, China: a cross-sectional study. <i>BMC psychiatry</i> 2020;20(1):557. doi:10.1186/s12888-020-02969-3	No comparison group
Limaye MA, Lantigua-Martinez M, Trostle ME. Differential Uptake of Telehealth for Prenatal Care in a Large New York City Academic Obstetrical Practice during the COVID-19 Pandemic. <i>American journal of perinatology</i> . 2020. doi:10.1055/s-0040-1721510	Wrong outcomes (resource use)
Lin W, Wu B, Chen B et al. Sleep Conditions Associate with Anxiety and Depression Symptoms among Pregnant Women during the Epidemic of COVID-19 in Shenzhen. <i>Journal of affective disorders</i> . 2020. doi:10.1016/j.jad.2020.11.114	No comparison group
Liu CH, Erdei C, Mittal L. Risk factors for depression, anxiety, and PTSD symptoms in perinatal women during the COVID-19 Pandemic. <i>Psychiatry Research</i> . 2021;295.	No comparison group

doi:10.1016/j.psychres.2020.113552	
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López-Morales H, del Valle MV, Canet-Juric L et al. Mental health of pregnant women during the COVID-19 pandemic: A longitudinal study. <i>Psychiatry Research</i> . 2020. doi:10.1016/j.psychres.2020.113567	No comparison group
Lumbreras-Marquez MI, Campos-Zamora M, Seifert SM, et al. Excess Maternal Deaths Associated With Coronavirus Disease 2019 (COVID-19) in Mexico. <i>Obstet Gynecol</i> . 2020;136(6):1114-6. doi:10.1097/aog.0000000000004140	Duplicate
Main EK, Chang S-C, Carpenter AM, et al. Singleton preterm birth rates for racial and ethnic groups during the coronavirus disease 2019 pandemic in California. <i>Am J Obstet Gynecol</i> . 2020:S0002-9378(20)31208-4. doi:10.1016/j.ajog.2020.10.033	Duplicate
Malhotra Y, Miller R, Bajaj K, Sloma A, Wieland D, Wilcox W. No change in cesarean section rate during COVID-19 pandemic in New York City. <i>European journal of obstetrics, gynecology, and reproductive biology</i> . 2020;253():328-329.	Wrong comparator
Mappa I, Distefano FA, Rizzo G. Effects of coronavirus 19 pandemic on maternal anxiety during pregnancy: a prospective observational study. <i>Journal of perinatal medicine</i> , 2020;48(6):545-550.	No comparison group
Matsushima M, Horiguchi H. The COVID-19 pandemic and mental well-being of pregnant women in Japan: Need for Economic and Social Policy interventions. <i>Disaster Medicine and Public Health Preparedness</i> . 2020:1-11. Available from: https://doi.org/10.1017/dmp.2020.334	No comparison group
Mazhar K, Hussain S, Ullah R et al. Mental Health Crisis in Pregnant Women during Current COVID-19 Pandemic. <i>Psychiatria Danubina</i> . 2020;32(3-4):598-599.	Insufficient data

Medina-Jimenez V, Bermudez-Rojas M, Murillo-Bargas H et al. The impact of the COVID-19 pandemic on depression and stress levels in pregnant women: a national survey during the COVID-19 pandemic in Mexico. The journal of maternal-fetal & neonatal medicine. 2020;():1-3. doi:10.1080/14767058.2020.1851675	Wrong study design
Meyer R, Levin G, Hendin N, Katorza E. Impact of the COVID-19 Outbreak on Routine Obstetrical Management. <i>The Israel Medical Association journal: IMAJ</i> . 2020;8(22):417-422.	Cohort overlap
Milne SJ, Corbett GA, Hehir MP, Lindow SW, Mohan S, Reagu S, et al. Effects of isolation on mood and relationships in pregnant women during the covid-19 pandemic. <i>European journal of obstetrics, gynecology, and reproductive biology</i> . 2020;252():610-611.	No comparison group
Mirzadeh M, Khedmat L. Pregnant women in the exposure to COVID-19 infection outbreak: the unseen risk factors and preventive healthcare patterns. <i>The Journal of Maternal-Fetal & Neonatal Medicine</i> . 2020. Available from: https://doi.org/10.1080/14767058.2020.1749257	Wrong study design
Monni G, Corda V, Iuculano A. Prenatal screening diagnosis and management in the era of coronavirus: the Sardinian experience. <i>Journal of perinatal medicine</i> . 2020. Available from: https://doi.org/10.1515/jpm-2020-0208	Wrong outcomes (resource use)
Moyer CA, Compton SD, Kaselitz E, Muzik M. Pregnancy-related anxiety during COVID-19: a nationwide survey of 2740 pregnant women. <i>Archives of women's mental health</i> . 2020. Available from: https://doi.org/10.1007/s00737-020-01073-5	Wrong study design
Moyer CA, Sakyi K, Sacks E, Compton SD, Lori JR, Williams JEO. COVID-19 is increasing Ghanaian pregnant women's anxiety and reducing healthcare seeking. <i>International journal of gynaecology and obstetrics</i> . 2020. doi:10.1002/ijgo.13487.	Wrong outcomes (resource use)
Muhaidat N, Fram K, Thekrallah F, Qatawneh A, Al-Btoush A. Pregnancy During COVID-19 Outbreak: The Impact of Lockdown in a Middle-Income Country on Antenatal Healthcare and Wellbeing. <i>International Journal of Women's Health</i> 2020;12():1065-	Wrong study design

1073. doi:10.2147/IJWH.S280342	
Nanjundaswamy MH, Shiva L, Desai G, Ganjekar S, Kishore T, Ram U, et al. COVID-19-related anxiety and concerns expressed by pregnant and postpartum women-a survey among obstetricians. <i>Archives of women's mental health</i> . 2020. Available from: https://doi.org/10.1007/s00737-020-01060-w	No comparison group
Naurin E, Markstedt E, Stolle D et al. Pregnant under the pressure of a pandemic: a large-scale longitudinal survey before and during the COVID-19 outbreak. <i>European Journal of Public Health</i> . 2020. doi:10.1093/eurpub/ckaa223	No comparison group
Nwafor JI, Okedo-Alex IN, Ikeotuonye AC. Prevalence and predictors of depression, anxiety and stress symptoms among pregnant women during COVID-19-related lockdown in Abakaliki, Nigeria. [Preprint] 2020. Available from: https://doi.org/10.1101/2020.08.30.20184697	No comparison group
Olshinka KR, Volodarsky-Perel A, Steiner N, Rubinfeld ES, Dahan MH. COVID-19 Pandemic effect on early pregnancy – are miscarriage rates altered, in asymptomatic women? <i>Fertility and Sterility</i> . 2020;114(3):e530-e531.	Wrong outcomes (miscarriage rates)
Orit Taubman – Ben-Ari, Chasson M, Abu-Sharkia S. Childbirth anxieties in the shadow of COVID-19: Self-compassion and social support among Jewish and Arab pregnant women in Israel. <i>Health & Social Care in the Community</i> . 2020; 00: 1-11. Available from: https://doi.org/10.1111/hsc.13196	No comparison group
Oskovi-Kaplan ZA, Buyuk GN, Ozgu-Erdinc AS, Keskin HL, Ozbas A, Moraloglu Tekin O. The Effect of COVID-19 Pandemic and Social Restrictions on Depression Rates and Maternal Attachment in Immediate Postpartum Women: a Preliminary Study. <i>The Psychiatric quarterly</i> . 2020. Available from: https://doi.org/10.1007/s11126-020-09843-1	No comparison group
Overbeck G, Graungaard AH, Rasmussen IS et al. Pregnant women's concerns and antenatal care during covid-19 lock-down of the danish society. <i>Danish Medical Journal</i>	Wrong study design

2020;67(12):1-7.	
Ozalp M, Demir O, Akbas H, Kaya E, Celik C, Osmanagaoglu MA. Effect of COVID-19 pandemic process on prenatal diagnostic procedures. <i>The Journal of Maternal-Fetal & Neonatal Medicine</i> . Available from: https://doi.org/10.1080/14767058.2020.1815190	Wrong outcomes (resource use)
Parra-Saavedra M, Villa-Villa I, Pérez-Olivo J, Guzman-Polania L, Galvis-Centurion P, Cumplido-Romero A, et al. Attitudes and collateral psychological effects of COVID-19 in pregnant women in Colombia. <i>International journal of gynaecology and obstetrics</i> . 2020; 151(2). Available from: https://doi.org/10.1002/ijgo.13348	No comparison group
Patabendige M, Gamage MM, Weerasinghe M, Jayawardane A. Psychological impact of the COVID-19 pandemic among pregnant women in Sri Lanka. <i>International Journal of Gynecology and Obstetrics</i> . 2020;151(1):150-153.	No comparison group
Paul P, Mondal D. Maternal and child healthcare in India during COVID-19 pandemic. <i>Midwifery</i> . 2021;92():102865. doi:10.1016/j.midw.2020.102865	Wrong study design
Peahl AF, Powell A, Berlin H, Smith RD, Krans E, Waljee J, et al. Patient and Provider Perspectives of a New Prenatal Care Model Introduced in Response to the COVID-19 Pandemic. <i>American journal of obstetrics and gynecology</i> . 2020. Available from: https://doi.org/10.1016/j.ajog.2020.10.008 .	Wrong outcomes (resource use)
Peahl AF, Powell A, Berlin H, Smith RD, Krans E, Waljee J, et al. Patient and Provider Perspectives of a New Prenatal Care Model Introduced in Response to the COVID-19 Pandemic. <i>American journal of obstetrics and gynecology</i> . 2020. Available from: https://doi.org/10.1016/j.ajog.2020.10.008 .	Wrong outcomes (resource use) - duplicate
Philip RK, Purtill H, Reidy E et al. Reduction in preterm births during the COVID-19 lockdown in Ireland: a natural experiment allowing analysis of data from the prior two decades. <i>medRxiv</i> . 2020;():2020.06.03.20121442	Duplicate

Philip RK, Purtill H, Reidy E, Daly M, Imcha M, McGrath D, et al. Reduction in preterm births during the COVID-19 lockdown in Ireland: a natural experiment allowing analysis of data from the prior two decades. To be published in <i>BMJ Global Health</i> . [Preprint] 2020. Available from: https://doi.org/10.1101/2020.06.03.20121442	Pre-print (published version available)
Preis H, Mahaffey B, Heiselman C, Lobel M. Pandemic-related pregnancy stress and anxiety among women pregnant during the coronavirus disease 2019 pandemic. <i>American Journal of Obstetrics and Gynecology MFM</i> . 2020;2(3). Available from: https://doi.org/10.1016/j.ajogmf.2020.100155	No comparison group
Preis H, Mahaffey B, Heiselman C, Lobel M. Vulnerability and resilience to pandemic-related stress among U.S. women pregnant at the start of the COVID-19 pandemic. <i>Social Science and Medicine</i> . 2020;266. Available from: https://doi.org/10.1016/j.socscimed.2020.113348	No comparison group
Profit J, Edmonds BT, Shah N, Cheyney M. The COVID-19 Pandemic as a Catalyst for More Integrated Maternity Care. <i>American journal of public health</i> . 2020;110(11):1663-1665.	Wrong study design
Rasmussen MI, Lühr Hansen M, Pichler G, et al. Extremely preterm infant admissions within the SafeBoosC-III consortium during the COVID-19 lockdown. medRxiv. 2020:2020.10.02.20204578. doi:10.1101/2020.10.02.20204578	Preprint (published version not available)
Ravaldi C, Alfredo v. COVID19 related anxiety and stress in pregnancy, post-partum and breastfeeding during lockdown in Italy. Data in Brief. 2020;33. doi: https://doi.org/10.1016/j.dib.2020.106440 .	No comparison group
Ravaldi C, Ricca V, Wilson A, Homer C, Vannacci A. Previous psychopathology predicted severe COVID-19 concern, anxiety and PTSD symptoms in pregnant women during lockdown in Italy. <i>Archives of Womens Mental Health</i> . 2020. Availavle from: https://doi.org/10.1007/s00737-020-01086-0	No comparison group

Ravaldi C, Wilson A, Ricca V, Homer C, Vannacci A. Pregnant women voice their concerns and birth expectations during the COVID-19 pandemic in Italy. <i>Women and birth: journal of the Australian College of Midwives</i> . 2020. Available from: https://doi.org/10.1016/j.wombi.2020.07.002	Wrong study design
Russell R, Lucas DN. The effect of COVID-19 disease on general anaesthesia rates for caesarean section. <i>Anaesthesia</i> . 2021. https://doi.org/10.1111/anae.15346	Wrong study design
Saccone G, Florio A, Aiello F, Venturella R, De Angelis MC, Locci M, et al. Psychological impact of coronavirus disease 2019 in pregnant women. <i>American Journal of Obstetrics and Gynecology</i> . 2020;223(2):293-295.	No comparison group
Sade S, Sheiner E, Wainstock T, Hermon N, Salem SY, Kosef T, et al. Risk for depressive symptoms among hospitalized women in high-risk pregnancy units during the covid-19 pandemic. <i>Journal of Clinical Medicine</i> . 2020;9(8):1-11.	Cohort overlap
Salehi L, Rahimzadeh M, Molaei E, Zaheri H, Esmaelzadeh-Saeieh S. The relationship among fear and anxiety of COVID-19, pregnancy experience, and mental health disorder in pregnant women: A structural equation model. <i>Brain and Behavior</i> . 2020. Available from: https://doi.org/10.1002/brb3.1835	No comparison group
Shahid A, Javed A, Rehman S, Tariq R, Ikram M, Suhail M. Evaluation of psychological impact, depression, and anxiety among pregnant women during the COVID-19 pandemic in Lahore, Pakistan. <i>International journal of gynaecology and obstetrics</i> . 2020;151(3). Available from: https://doi.org/10.1002/ijgo.13398	No comparison group
Shakespeare C, Dube H, Moyo S, Ngwenya S. Resilience and vulnerability of maternity services in Zimbabwe: a comparative analysis of the effect of Covid-19 and lockdown control measures on maternal and perinatal outcomes at Mpilo Central Hospital. <i>BMC Pregnancy and Childbirth</i> . 2020. doi:10.21203/rs.3.rs-52159/v1	Preprint (published version not available)
Sharma S, Burd I, Liao A. Special issue on COVID-19 and pregnancy: Consequences for maternal and neonatal health. <i>American Journal of Reproductive Immunology</i> . 2020;84(5). Available from: https://doi.org/10.1111/aji.13354	Wrong study design

Shayganfard M, Mahdavi F, Haghighi M, Sadeghi Bahmani D, Brand S. Health Anxiety Predicts Postponing or Cancelling Routine Medical Health Care Appointments among Women in Perinatal Stage during the Covid-19 Lockdown. International journal of environmental research and public health. 2020;17(21). doi:10.3390/ijerph17218272	Wrong outcomes (resource use)
Shields AD, Wagner RK, Knutzen D, Deering S, Nielsen PE. Maintaining access to maternal fetal medicine care by telemedicine during a global pandemic. Journal of Telemedicine and Telecare. 2020. doi:10.1177/1357633X20957468	Wrong outcomes (resource use)
Shikuku DN, Nyaoke I, Gichuru S, et al. Early indirect impact of COVID-19 pandemic on utilization and outcomes of reproductive, maternal, newborn, child and adolescent health services in Kenya. medRxiv. 2020:2020.09.09.20191247. doi:10.1101/2020.09.09.20191247	Preprint (published version not available)
Silverman ME, Medeiros C, Burgos L. Early pregnancy mood before and during COVID-19 community restrictions among women of low socioeconomic status in New York City: a preliminary study. Arch Womens Ment Health. 2020:1-4. doi:10.1007/s00737-020-01061-9	Duplicate
Siru R, Conradie JH, Gillett MJ, Gianatti E, Page MH. Risk of undetected cases of gestational diabetes mellitus during the COVID-19 pandemic. <i>The Medical journal of Australia</i> . 2020;213(7):335-335.	Wrong outcomes (detection of gestational diabetes)
Spinola O, Liotti M, Speranza AM, Tambelli R. Effects of COVID-19 Epidemic Lockdown on Postpartum Depressive Symptoms in a Sample of Italian Mothers. Front. Psychiatry. 2020. 11:589916. doi: 10.3389/fpsy.2020.589916	No comparison group
Spurlin EE, Han ES, Silver ER et al. Where Have All the Emergencies Gone? The Impact of the COVID-19 Pandemic on Obstetric and Gynecologic Procedures and Consults at a New York City Hospital. Journal of minimally invasive gynecology. 2020. doi:10.1016/j.jmig.2020.11.012	Wrong outcomes (resource use)

Stepowicz A, Wencka B, Bieńkiewicz J, Horzelski W, Grzesiak M. Stress and Anxiety Levels in Pregnant and Post-Partum Women during the COVID-19 Pandemic. <i>International journal of environmental research and public health</i> 2020;17(24). doi:10.3390/ijerph17249450	No comparison group
Sun F, Zhu J, Tao H, Ma Y, Jin W. A systematic review involving 11,187 participants evaluating the impact of COVID-19 on anxiety and depression in pregnant women. <i>Journal of Psychosomatic Obstetrics and Gynaecology</i> . 2020. doi:10.1080/0167482X.2020.1857360	Wrong study design
Surita FG, Luz AG, Hsu de Paiva Rodrigues L, Carvalho FHC, Brock MF, Nakamura MU. Outpatient care for pregnant and puerperal women during the COVID-19 pandemic. <i>Revista brasileira de ginecologia e obstetricia: revista da Federacao Brasileira das Sociedades de Ginecologia e Obstetricia</i> . 2020;42(9):588-592.	Wrong study design
Tadesse E. Antenatal Care Service Utilization of Pregnant Women Attending Antenatal Care in Public Hospitals During the COVID-19 Pandemic Period. <i>International journal of women's health</i> . 2020;12():1181-1188	Wrong outcomes (resource use)
Taubman-Ben-Ari O, Chasson M, Abu Sharkia S, Weiss E. Distress and anxiety associated with COVID-19 among Jewish and Arab pregnant women in Israel. <i>Journal of Reproductive and Infant Psychology</i> . 2020;38(3):340-348.	Wrong comparator
Teshome A, Gudu W, Bekele D, Asfaw M, Enyew R, Compton SD. Intimate partner violence among antenatal care attendees amidst the COVID-19 crisis: The incidence in Ethiopia. <i>Int J Gynecol Obstet</i> . 2021. doi:https://doi.org/10.1002/ijgo.13566	Wrong outcomes (domestic violence)
Thayer ZM, Gildner TE. COVID-19-related financial stress associated with higher likelihood of depression among pregnant women living in the United States. <i>American Journal of Human Biology</i> . 2020. Available from: https://doi.org/10.1002/ajhb.23508	Wrong study design
Vazquez-Vazquez A, Dib S, Rougeaux E, Wells JC, Fewtrell M. The impact of the Covid-19 lockdown on the experiences and feeding practices of new mothers in the UK: Preliminary data from the COVID-19 New Mum Study. <i>Appetite</i> . 2021;156. Available	Wrong study design

from: doi:10.1016/j.appet.2020.104985	
Verweij EJ, M'hamdi HI, Steegers EAP, Reiss IKM, Schoenmakers S. Collateral damage of the covid-19 pandemic: a Dutch perinatal perspective. <i>BMJ</i> . 2020;369:m2326. Available from: https://doi.org/10.1136/bmj.m2326	Wrong study design
Vieira LG, Camargo ELS, Schneider G, Silva GPR, Thomazini M, Possani MA, et al. Repercussions of the COVID-19 pandemic on the mental health of pregnant and puerperal women: a systematic review. [Preprint] 2020. Available from: https://doi.org/10.1101/2020.08.17.20176560	Wrong study design
Walsh S, Simmons-Jones F, Best R. Care during covid-19: partner attendance at maternity services. <i>BMJ</i> . 2020;371():m3973. Available from: https://doi.org/10.1136/bmj.m3973	Wrong study design
Wilson CA, Dalton-Locke CA, Johnson S, Simpson A, Oram S, Howard LM. Challenges and opportunities of the COVID-19 pandemic for perinatal mental health care: a mixed methods study of mental health care staff. [Preprint] 2020. Available from: https://doi.org/10.1101/2020.09.23.20199927	No comparison group
Yang X, Song B, Wu A et al. Whether and how lockdown and mandatory quarantine regarding COVID-19 may affect mental health among pregnant women in China: Potential social, cognitive, and eHealth-related mechanisms. <i>J Med Internet Res</i> . 2020. doi: 10.2196/24495.	No comparison group
Yassa M, Birol P, Yirmibes C, Usta C, Haydar A, Yassa A, et al. Near-term pregnant women's attitude toward, concern about and knowledge of the COVID-19 pandemic. <i>Journal of Maternal-Fetal and Neonatal Medicine</i> . 2020;33(22):3827-3834.	Wrong comparator
Yassa M, Yassa A, Yirmibeş C, Birol P, Ünlü UG, Tekin AB. Anxiety levels and obsessive compulsion symptoms of pregnant women during the COVID-19 pandemic. <i>Turkish journal of obstetrics and gynecology</i> . 2020;17(3):155-160.	No comparison group

Yue C, Liu C, Wang J, Zhang M, Wu H, Li C, et al. Association between social support and anxiety among pregnant women in the third trimester during the coronavirus disease 2019 (COVID-19) epidemic in Qingdao, China: The mediating effect of risk perception. <i>The International journal of social psychiatry</i> . 2020. Available from: https://doi.org/10.1177/0020764020941567	No comparison group
Zainiyah Z, Susanti E. Defining factor of pregnant women's anxiety in pandemic of COVID-19 at east java region: Logistic regression analysis. <i>International Journal of Psychosocial Rehabilitation</i> . 2020;24(8):15285-15292.	Insufficient data
Zarasvand S, Bayar E, Adan M et al. Rapid quality improvement in a preterm birth clinic care pathway during the COVID-19 pandemic. <i>BMJ open quality</i> 2020;9(4). doi:10.1136/bmjopen-2020-001049	Wrong outcomes (resource use)
Zeng X, Li W, Sun H, Luo X, Garg S, Liu T et al. Mental Health Outcomes in Perinatal Women During the Remission Phase of COVID-19 in China. <i>Frontiers in Psychiatry</i> . 2020;11. Available from: https://doi.org/10.3389/fpsy.2020.571876	No comparison group
Zhang CJP, Wu H, He Z et al. Psychobehavioral Responses, Post-Traumatic Stress and Depression in Pregnancy During the Early Phase of COVID-19 Outbreak. <i>Psychiatric Research and Clinical Practice</i> . 2020. doi:10.1176/appi.prcp.20200019	No comparison group
Zhang J, Zhang Y, Huo S, Ma Y, Ke Y, Wang P, et al. Emotional eating in pregnant women during the covid-19 pandemic and its association with dietary intake and gestational weight gain. <i>Nutrients</i> . 2020;12(8):1-12.	No comparison group
Zhang J, Zhang Y, Ma Y, Ke Y, Huo S, He, Liping, et al. The associated factors of cesarean section during COVID-19 pandemic: A cross-sectional study in nine cities of China. <i>Environmental Health and Preventive Medicine</i> . 2020;25(1). Available from https://doi.org/10.1186/s12199-020-00899-w	No comparison group
Zhang Y, Ma ZF. Psychological responses and lifestyle changes among pregnant women with respect to the early stages of COVID-19 pandemic. <i>The International journal of social psychiatry</i> . 2020; https://doi.org/10.1177/0020764020952116	Wrong outcomes (lifestyle change and event impact)

<p>Zhou Y, Shi H, Liu Z, Peng S, Wang R, Qi L, et al. The prevalence of psychiatric symptoms of pregnant and non-pregnant women during the COVID-19 epidemic. <i>Translational Psychiatry</i>. 2020;10(1). Available from: https://doi.org/10.1038/s41398-020-01006-x</p>	<p>Wrong comparator</p>
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Table S3. Summarised findings of studies reporting on changes in resource use or service configuration

Author (year)	Country	Study Population	GRSI	Outcomes Reported	Findings in exposed group	NOS Score
Abdela (2020)	Ethiopia	Single Centre	80.56	Family planning visits Antenatal clinic attendance Deliveries per week	Decreased Decreased No change	7*
Bhatia (2020)	UK	Multi-Centre	79.63	General anaesthetic for caesarean section Regional anaesthesia to general anaesthesia conversion during caesarean section	Decreased Decreased	7*
Biviá-Rovig (2020)	Spain	Regional (Valencia)	79.17	Cancellation of antenatal classes Attendance of online classes Cancellation of appointments due to fear of contagion	52.2%* 24.4%* 22.5%*	4*
Bornstein (2020)	USA	Multi-Centre	72.69	Postpartum length of stay (hours): caesarean section Postpartum length of stay (hours): vaginal birth	Decreased Decreased	7*
Dell'Utri (2020)	Italy	Single Centre	75.46	Overall pregnancy related admissions Admissions for delivery Postpartum admissions	Decreased Increased Decreased	7*
Filice (2020)	Italy	Single Centre	93.52	Uptake of toxoplasmosis screening	No change	7*
Goyal (2020)	India	Single Centre	100.0	Pregnancy related admissions Antenatal clinic attendance	Decreased Decreased	6*
Greene (2020)	USA	Single Centre	72.69	Admission to delivery time (hours) Postpartum length of stay (nights)	No change Decreased	8*

				Epidural use	No change	
Gu (2020)	China	Single Centre	81.02	Outpatient visits per week Hospitalisation per week Emergency department attendance	Decreased Decreased Decreased	9*
Holcombe (2020)	USA	Single Centre	72.69	Percentage of appointments conducted virtually Clinic waiting time for in-person visits Clinic attendance for virtual appointments compared to in person appointments Satisfaction with telemedicine (WHC) Satisfaction with telemedicine (MFM)	Increased Decreased Higher 95% good or very good* 87% good or very good*	7*
Hui (2020)	Hong Kong	Single Centre	66.67	Rate of hospital deliveries Proportion of women with labour companionship Epidural use Administration of pethidine injections	Decreased Decreased No change Increased	5*
Jeganathan (2020)	USA	Multi-Centre	72.69	Antenatal clinic attendance Antenatal clinic no show Antenatal clinic cancellation Antenatal clinic cancellation by patient Patient satisfaction with telemedicine Provider satisfaction with telemedicine	Decreased Decreased Increased Decreased 86.9% satisfied* 87.8% satisfied*	8*
Justman (2020)	Israel	Single Centre	94.44	Hospital admissions Triage attendance	Decreased Decreased	9*

				High risk clinic visits Ultrasound visits Total number of deliveries Epidural use	Decreased Decreased Decreased Increased	
KC (2020)	Nepal	Multi-Centre	96.3	Deliveries per week Attendance to childbirth services by disadvantaged groups Companionship during labour Hand hygiene practices by clinicians during childbirth Clinician use of gloves and gowns during childbirth Intrapartum fetal heartrate monitoring Preparation of equipment used during childbirth Skin to skin after delivery	Decreased Decreased Decreased Increased Decreased Decreased No change Increased	9*
Khalil (2020)	UK	Single Centre	79.63	Antenatal bookings per week Obstetric triage attendance per week Deliveries per week	Decreased Decreased Decreased	7*
Liu (2020)	China	Multi-Centre	77.31	Patient request for online consultation Change of planned mode of delivery from vaginal to elective caesarean section due to the pandemic Change of planned mode of delivery from caesarean section to vaginal delivery due to the pandemic	75.4% Wuhan, 69.5% Chongqing* 12.7% Wuhan, 6.0% Chongqing* 5.6% Wuhan, 3.1% Chongqing*	6*
Madden	USA	Multi-centre	72.69	Proportion of antenatal clinic visits conducted virtually Proportion of booked visits that were 'no shows'	Increased Decreased	7*
McDonnell (2020)	Ireland	Single Centre	90.74	Unbooked mothers presenting in labour	No change	8*

				Babies born before arrival	No change	
Monni (2020)	Italy	Single Centre	93.52	First trimester prenatal screening Second trimester prenatal screening Third trimester prenatal screening Performance of invasive fetal testing	Increased No change No change Increased	7*
Ozalp (2020)	Turkey	Single Centre	77.78	Rate of women accepting offered invasive testing Number of procedures performed - Chorionic villous sampling - Amniocentesis - Cordocentesis	Decreased Decreased Decreased Increased	9*
Peahl (2020)	USA	Single Centre	72.69	Average total antenatal clinic visit volume Proportion of antenatal clinic visits conducted virtually Patient satisfaction with telemedicine Provider satisfaction with telemedicine	Decreased Increased 77.5%* 83.1%*	8*
Silverman (2020)	USA	Single Centre	72.69	Antenatal clinic attendance	No change	6*
Sun (2020)	Brazil	Single Centre	81.02	Delivery within 3 hours of admission	Increased	6*

***Results from surveys without comparison groups**

Need to say what the abbreviations in the Table above stand for: WHC and MFM (Ref: Holcombe)

Table S4. A list of the outcomes, outcome measures, the relevant studies included in the systemic review and those eligible for meta-analysis for each outcome

Outcome	Outcome measures and further details	Studies in systematic review	Studies eligible for meta-analysis
Gestational diabetes	Incidence of gestational diabetes.	6 [Khalil, Gu, Justman, Meyer, Mor, Pariente]	6 [Khalil, Gu, Justman, Meyer, Mor, Pariente]
Hypertensive disorders of pregnancy	Incidence of pre-eclampsia. Incidence of gestational hypertension.	8 [Gu, Justman, Kasuga, Khalil, McDonnell, Meyer, Mor, Pariente]	6 [Gu, Justman, Khalil, Meyer, Mor, Pariente]
Postpartum haemorrhage	Incidence of postpartum haemorrhage. (Justman, McDonnell) Deaths due to postpartum haemorrhage. (Lumbreras-Marquez)	3 [Justman, Lumbreras-Marquez, McDonnell]	2 [McDonnell, Justman]
Maternal mortality	Incidence of maternal death.	3 [Goyal, Kumari, Lumbreras-Marquez]	2 [Lumbreras-Marquez, Kumari]
Stillbirth	Incidence of stillbirth.	14 [Caniglia, De Curtis, Dell'Utri, Gu, Handley, Justman, KC, Khalil, Kumar, Kumari, McDonnell, Meyer, Mor, Stowe]	12 [Caniglia, De Curtis, Dell'Utri, Handley, Justman, KC, Kumar, Kumari, McDonnell, Meyer, Mor, Stowe]
Vaginal birth	Incidence of spontaneous vaginal birth.	12 [Berghella, Bornstein, Dell'Utri, Greene, Gu, KC, Hui, Li, McDonnell, Meyer, Mor, Sun]	11 [Berghella, Bornstein, Greene, Gu, KC, Hui, Li, McDonnell, Meyer, Mor,

			Sun]
Induction of labour	Incidence of induction of labour.	7 [Dell'Utri, Justman, Greene, KC, McDonnell, Meyer, Mor]	7 [Dell'Utri, Justman, Greene, KC, McDonnell, Meyer, Mor]
Instrumental delivery	Incidence of instrumental delivery (including vacuum and forceps delivery).	8 [Greene, Hui, Justman, KC, McDonnell, Meyer, Mor, Sun]	7 [Greene, Hui, KC, Justman, McDonnell, Meyer, Mor]
Caesarean section	Incidence of caesarean section (including undefined, emergency caesarean and elective caesarean).	17 [Berghella, Bhatia, Bornstein, De Curtis, Greene, Gu, Hui, Justman, KC, Khalil, Kumari, Li, McDonnell, Meyer, Mor, Sun, Zanardo]	17 [Berghella, Bhatia, Bornstein, DeCurtis, Greene, Gu, Hui, Justman, KC, Khalil, Kumari, Li, McDonnell, Meyer, Mor, Sun, Zanardo]
Preterm birth <37 weeks' gestation	Incidence of preterm birth <37 weeks' gestation.	16 [Been, Berghella, Caniglia, De Curtis, Greene, Handley, Hedermann, Justman, Kasuga, KC, Khalil, Main, McDonnell, Meyer, Mor, Sun]	15 [Berghella, Caniglia, De Curtis, Greene, Handley, Hedermann, Justman, KC, Kasuga, Khalil, McDonnell, Meyer, Main, Mor, Sun]
Preterm birth <34 weeks' gestation	Incidence of preterm birth <34 weeks' gestation.	4 [Berghella, Khalil, Meyer, Mor]	4 [Berghella, Khalil, Meyer, Mor]
Preterm birth <32 weeks' gestation	Incidence of preterm birth <32 weeks' gestation.	6 [Caniglia, De Curtis, Hedermann, Justman, Main, Meyer]	6 [Caniglia, De Curtis, Hedermann, Justman, Main, Meyer]
Preterm birth <28 weeks' gestation	Incidence of preterm birth <28 weeks' gestation.	3 [Berghella, Main, Mor]	3 [Berghella, Main, Mor]
Iatrogenic preterm	Incidence of iatrogenic preterm birth.	2 [Berghella, Handley]	2 [Berghella, Handley]

birth			
Spontaneous preterm birth	Incidence of spontaneous preterm birth.	2 [Berghella, Handley]	2 [Berghella, Handley]
Preterm birth, Other	Incidence of preterm birth 24-25+6, 26-27+6, 28-31+6 and 32-35+6 (<i>Been</i>), undefined measure (<i>Gu, Li</i>).	4 [Been, Berghella, Gu, Li]	..
Neonatal intensive care unit admission	Incidence of neonatal intensive care unit admission.	7 [Khalil, Kugelman, Gu, Greene, Justman, Meyer, Mor]	7 [Khalil, Kugelman, Gu, Greene, Justman, Meyer, Mor]
Apgar score	Incidence of 5 minute Apgar score <7 (<i>Greene, Meyer, Justman, Kugelman, Mor</i>), Mean Apgar score at 1 minute and Apgar score at 5 minutes (<i>Gu, Justman</i>), incidence of Apgar score <7 and <5 (<i>Meyer</i>), incidence of Apgar score <7 and ≥7 (<i>Sun</i>), Apgar score <5 at 1 min (<i>Meyer</i>).	6 [Greene, Gu, Justman, Kugelman, Meyer, Mor, Sun]	4 [Greene, Justman, Meyer, Mor]
Cord blood gas	Incidence of arterial cord pH <7.0	2 [Justman, Greene]	..
Cord blood gas	Incidence of arterial cord pH <7.1.	2 [Kugelman, Mor]	..
Neonatal death	Incidence of neonatal death.	3 [Caniglia, KC, McDonnell]	3 [KC, Caniglia, McDonnell]
Birth weight	Incidence of birth weight <2500g (<i>Sun, KC, McDonnell</i>).	3 [Sun, KC, McDonnell]	3 [Sun, KC, McDonnell]
Birthweight	Incidence of VLBW (very low birth weight) (<1500g), ELBW (extremely low birth weight) (<1000g).	1 [Philip]	..
Postpartum depression	Mean EDPS score (<i>Hui, Silverman, Wu, Zanardo</i>), EDPS >12 (<i>Zanardo</i>), EDPS score ≥10 and <10 one day after delivery (<i>Hui</i>), EDPS score >10 day 2 after delivery (<i>Pariente</i>), EDPS >10 in third trimester (<i>Wu</i>).	5 [Hui, Pariente, Silverman, Wu, Zanardo]	3 [Hui, Wu, Zanardo]

Maternal anxiety	Beck Anxiety Inventory (BAI) and Inventory of Depression and Anxiety Symptoms II (IDAS II) scores (<i>Ayaz</i>), 10-item Kessler Psychological Distress Scale (K10) score (<i>Berthelot</i>), Structured questionnaire (<i>Gu</i>), incidence according to Generalised Anxiety Disorder (GAD) score (<i>Suzuki</i>), EDPS-3A (<i>Wu</i>).	5 [Ayaz, Berthelot, Gu, Suzuki, Wu]	..
Maternal depression and suicidal ideation	IDAS II scores (<i>Ayaz</i>), K10 score (<i>Berthelot</i>), Self-depression rating scale (SDS) score (<i>Ayaz</i>), Symptom Checklist-90 Revised (SCL90-R) (<i>Xie</i>), suicidal ideation (according to EDPS question 10) (<i>Pariente</i>), incidence according to the Whooley two questions (<i>Suzuki</i>).	5 [Ayaz, Berthelot, Pariente, Suzuki, Xie]	..
Maternal emotions and concerns	Positive and negative affect were assessed using the Positive and Negative Affect Schedule (PANAS) (<i>Berthelot</i>), the PTSD checklist for DSM-5 (PCL-5) assessed post-traumatic stress symptoms (<i>Berthelot</i>), pregnancy-induced stress (<i>Matvienko-Sikar</i>).	1 [Berthelot, Matvienko-Sikar]	..
Breastfeeding	Exclusive breastfeeding on discharge (<i>Greene</i>), breastfeeding within one hour of birth (<i>KC</i>)	2 [Greene, KC]	..
Ectopic pregnancy	Incidence hospital admission for ectopic pregnancy (Dell'Utri).Surgical treatment of ectopic pregnancy (due to rupture [Casadio, Dell'Utri] or rupture and failed medical treatment [Werner])	3 [Dell'Utri, Casadio, Werner]	3 [Dell'Utri, Casadio, Werner]

EPDS = Edinburgh Postnatal Depression Scale, PTSD = Post Traumatic Stress Disorder, DSM PCL-5 (PTSD Checklist 5)

Table S5. Quality Assessment of the included studies using the Newcastle-Ottawa Scale (NOS)

Author	Selection				Comparability	Outcome			Total (max score: 9*)
	Represent- ativeness of exposed cohort (max score: *)	Selection of non- exposed (max score: *)	Ascertain- ment of exposure (max score: *)	Demonstration that outcome of interest was not present at start of study (max score: *)	Comparability of cohorts on the basis of design or analysis (max score: *)	Assessment of outcome (max score: *)	Was follow- up long enough for outcomes to occur (max score: *)	Adequacy of follow up (max score: *)	
Ayaz (2020) ²²	—	*	*	*	*	—	*	*	6*
Been (2020) ⁵	*	*	*	*	**	*	*	*	9*
Berghella (2020) ³³	*	*	*	*	*	*	*	*	8*
Berthelot (2020) ⁴⁴	—	—	*	—	**	—	*	*	6*
Bhatia (2020) ⁴⁵	*	*	*	*	—	*	*	*	7*
Bornstein (2020) ⁴⁶	*	*	*	*	—	*	<input type="checkbox"/>	<input type="checkbox"/>	7 <input type="checkbox"/>

Caniglia (2020) ⁴⁷	*	*	*	*	**	*	*	*	9*
Casadio (2020) ⁴⁸	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7 <input type="checkbox"/>
De Curtis (2020) ⁴⁹	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6 <input type="checkbox"/>
Dell'Utri (2020) ¹²	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7 <input type="checkbox"/>
Goyal (2020) ¹³	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6 <input type="checkbox"/>
Greene (2020) ¹⁴	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8 <input type="checkbox"/>
Gu (2020) ¹⁵	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	**	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9 <input type="checkbox"/>
Handley (2021) ¹⁶	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	**	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9 <input type="checkbox"/>
Hedermann (2020) ¹⁷	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7 <input type="checkbox"/>
Hui (2020) ¹⁸	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	—	—	—	<input type="checkbox"/>	<input type="checkbox"/>	5 <input type="checkbox"/>
Justman (2020) ¹⁹	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	**	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9 <input type="checkbox"/>

Kasuga (2020) ²⁰	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7 <input type="checkbox"/>
KC (2020) ³²	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	**	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9 <input type="checkbox"/>
Khalil (2020) ₂₁	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7 <input type="checkbox"/>
Kugelman (2020) ²³	*	*	*	*	—	*	*	*	7 <input type="checkbox"/>
Kumar (2020) ²⁴	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	**	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9 <input type="checkbox"/>
Kumari (2020) ²⁵	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	—	<input type="checkbox"/>	<input type="checkbox"/>	—	5 <input type="checkbox"/>
Li (2020) ²⁶	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	**	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9 <input type="checkbox"/>
Lumbreras- Marquez (2020) ²⁷	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7 <input type="checkbox"/>
Main (2020) ₂₈	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	**	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9 <input type="checkbox"/>
Matvienko- Sikar (2020) ₂₉	*	*	*	—	—	—	*	*	5 <input type="checkbox"/>
McDonnell (2020) ³⁰	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8 <input type="checkbox"/>

Meyer (2020) ³¹	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7 <input type="checkbox"/>
Mor (2020) ³²	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7 <input type="checkbox"/>
Pariente (2020) ³⁴	—	<input type="checkbox"/>	<input type="checkbox"/>	—	<input type="checkbox"/>	—	<input type="checkbox"/>	<input type="checkbox"/>	5 <input type="checkbox"/>
Philip (2020) ³⁵	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7 <input type="checkbox"/>
Silverman (2020) ³⁶	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	—	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6 <input type="checkbox"/>
Stowe (2020) ³⁷	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7 <input type="checkbox"/>
Sun (2020) ³⁸	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6 <input type="checkbox"/>
Suzuki (2020) ³⁹	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	**	—	<input type="checkbox"/>	<input type="checkbox"/>	8 <input type="checkbox"/>
Werner (2020) ⁴⁰	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7 <input type="checkbox"/>
Wu (2020) ⁴¹	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	**	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9 <input type="checkbox"/>
Xie (2021) ⁴³	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	—	—	—	<input type="checkbox"/>	<input type="checkbox"/>	5 <input type="checkbox"/>
Zanardo (2020) ⁴²	—	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8 <input type="checkbox"/>

Table S6. Results of the meta-regression using Oxford government response stringency index (GRSI) and World Health Organization (WHO) healthcare efficiency score as co-variates.

Outcome	Meta-regression estimate (SE)*	P value	Accounted Heterogeneity
Hypertensive disorders of pregnancy – WHO efficiency quartile second – WHO efficiency quartile fourth	Reference -1.733 (0.762)	0.023	31.5%
Hypertensive disorders of pregnancy – GRSI score	0.489 (3.680)	0.89	0.0%
Preterm birth <37 weeks – WHO efficiency quartile second – WHO efficiency quartile third – WHO efficiency quartile fourth	Reference -0.020 (0.644) -0.145 (0.106)	0.97 0.17	0.0%
Preterm birth <37 weeks – GRSI score	0.556 (0.451)	0.21	0.0%
Induction of labour – WHO efficiency quartile second – WHO efficiency quartile fourth	Reference -0.783 (0.171)	<0.0001	89.6%
Induction of labour – GRSI score	0.833 (1.845)	0.65	12.1%

Neonatal death – WHO efficiency quartile second – WHO efficiency quartile third	Reference -1.200 (1.177)	0.30	0.0%
Neonatal death – GRSI score	0.619 (0.596)	0.29	0.0%
EPDS – WHO efficiency quartile second – WHO efficiency quartile fourth	Reference 0.787 (1.623)	0.62	0.0%
EPDS – GRSI score	0.900 (0.474)	0.057	0.0%
Stillbirth – WHO efficiency quartile second – WHO efficiency quartile third – WHO efficiency quartile fourth	Reference 0.065 (0.296) 0.058 (0.268)	0.82 0.82	0.0%
Stillbirth – GRSI score	0.153 (0.078)	0.050	50.4%

*Linear mixed-effects model

SE: standard error, EPDS: Edinburgh Postnatal Depression Scale.

The original publication of the WHO does not include Hong Kong in their list. However, Hong Kong's healthcare system is ranked as the most efficient in the world according to the Bloomberg Healthcare efficiency index.

Figure S1. Funnel plot for studies reporting on stillbirth. Funnel plot asymmetry test did not show a significant publication bias effect ($P = 0.12$)

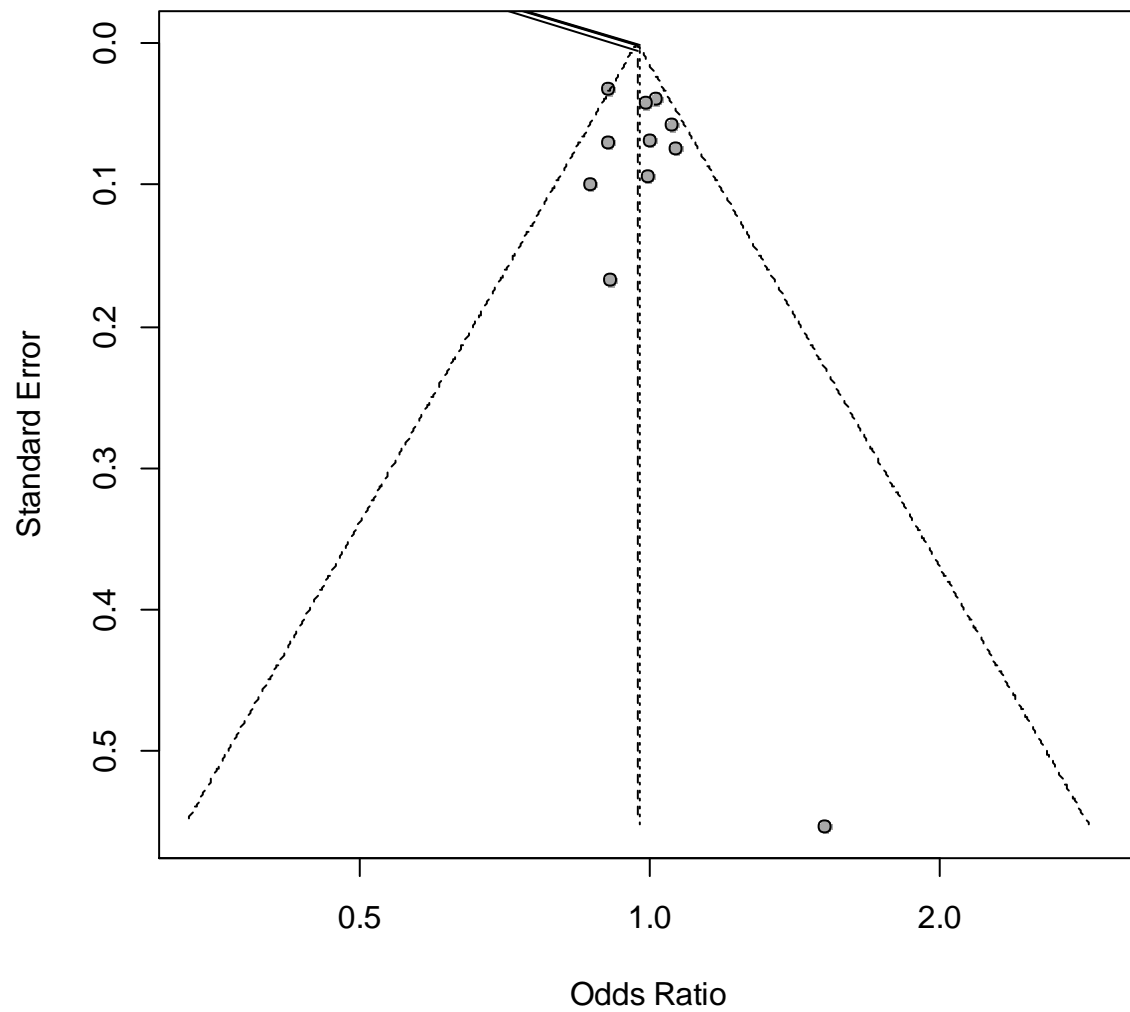


Figure S2a. Forest plot of pooled odds ratio of maternal mortality during the COVID-19 pandemic compared to prior to the pandemic

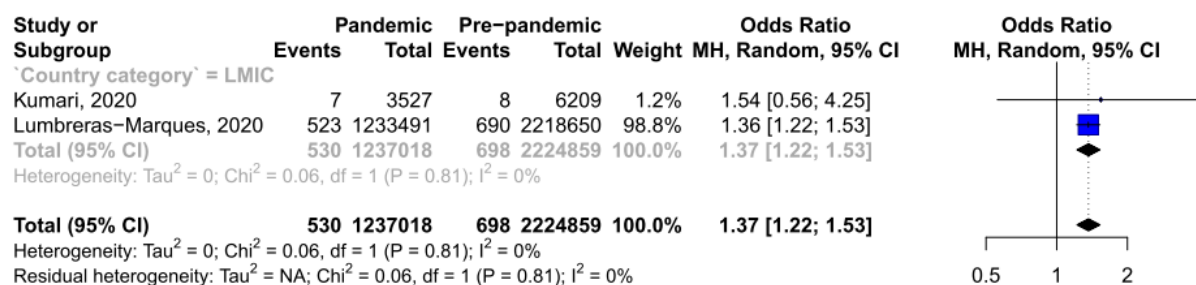


Figure S2b. Forest plot of pooled odds ratio of stillbirth during the COVID-19 pandemic compared to prior to the pandemic

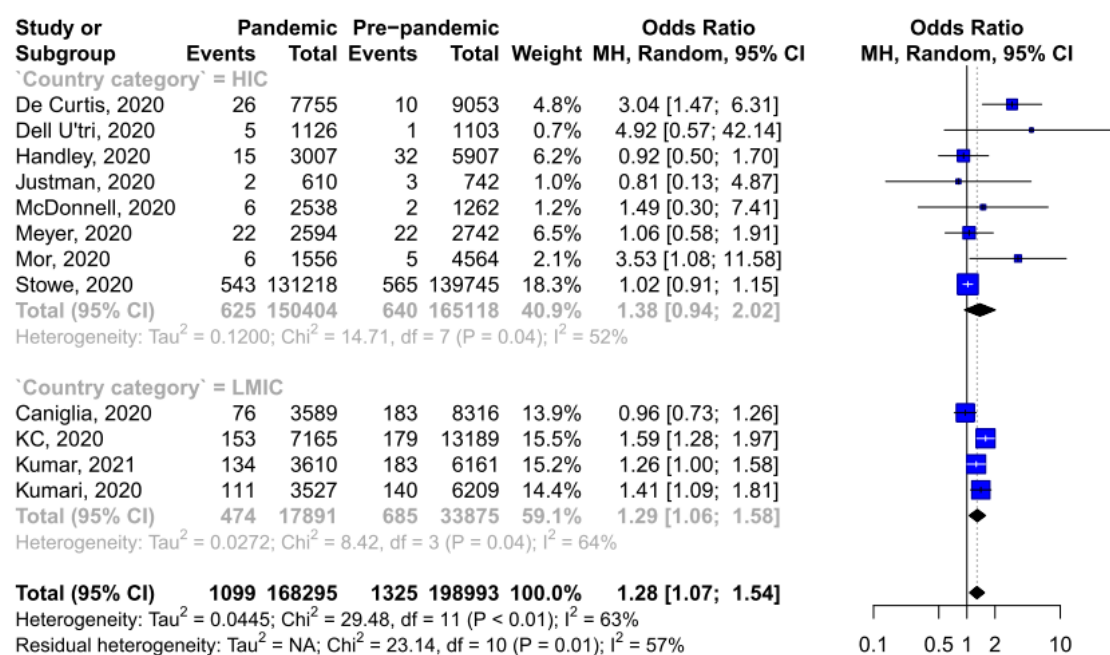


Figure S2c. Forest plot of pooled odds ratio of neonatal death during the COVID-19 pandemic compared to prior to the pandemic

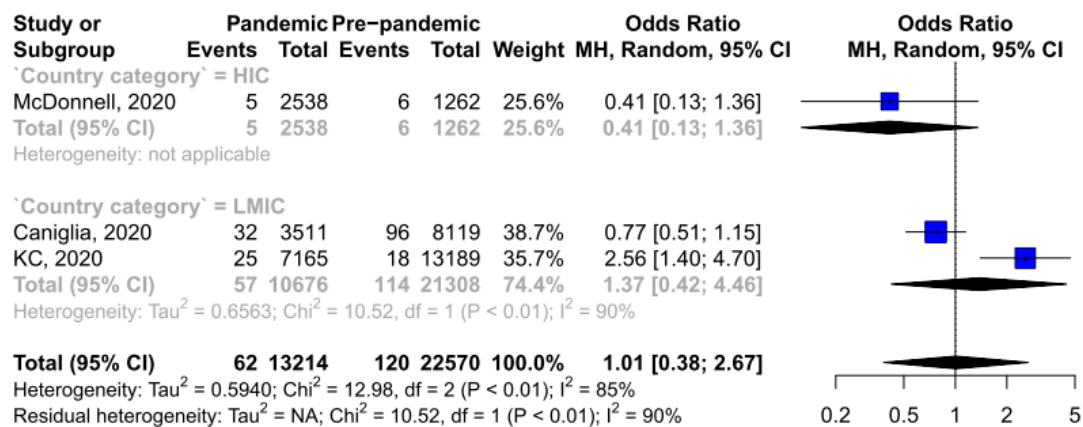


Figure S2d. Forest plot of pooled odds ratio of gestational diabetes during the COVID-19 pandemic compared to prior to the pandemic

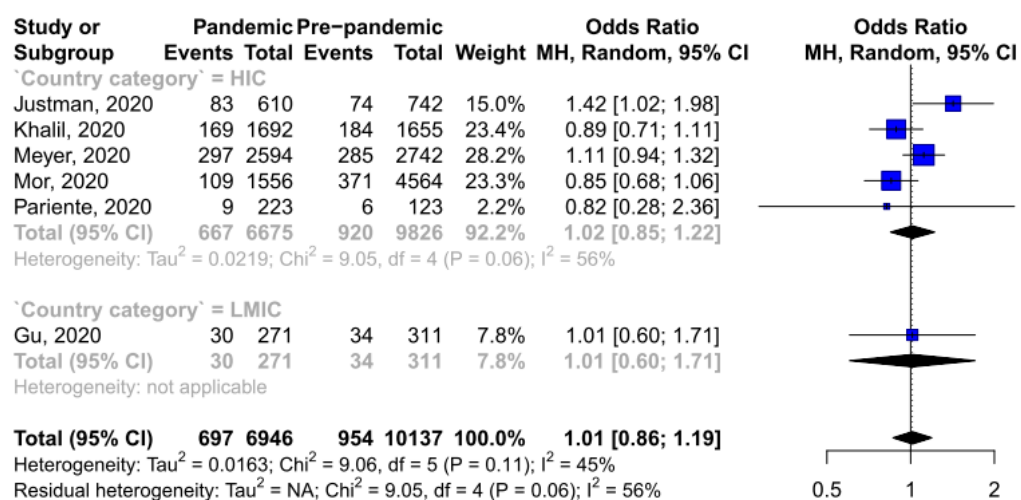


Figure S2e. Forest plot of pooled odds ratio of hypertensive disorders of pregnancy during the COVID-19 pandemic compared to prior to the pandemic

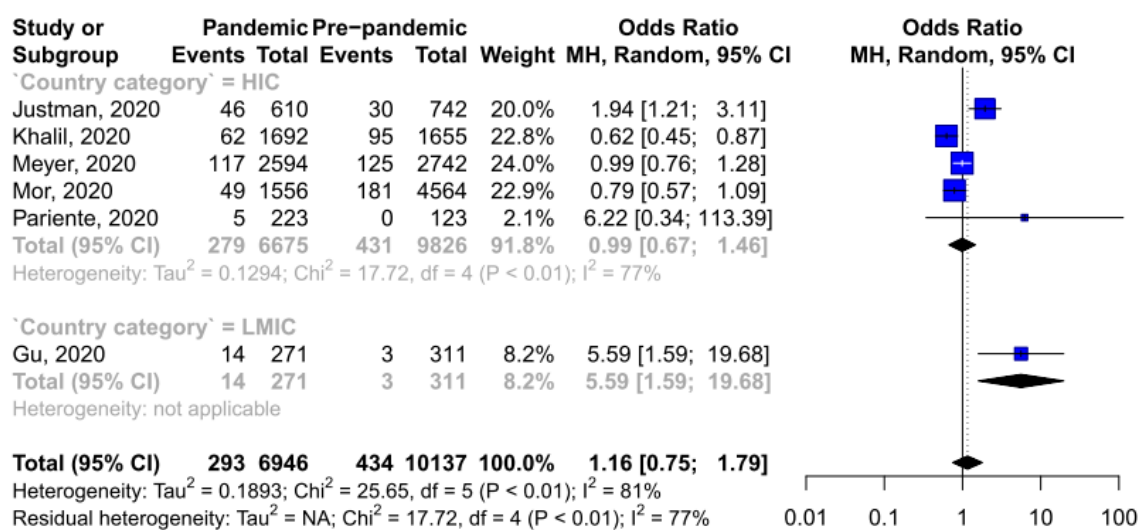


Figure S2f. Forest plot of pooled odds ratio of postpartum haemorrhage during the COVID-19 pandemic compared to prior to the pandemic

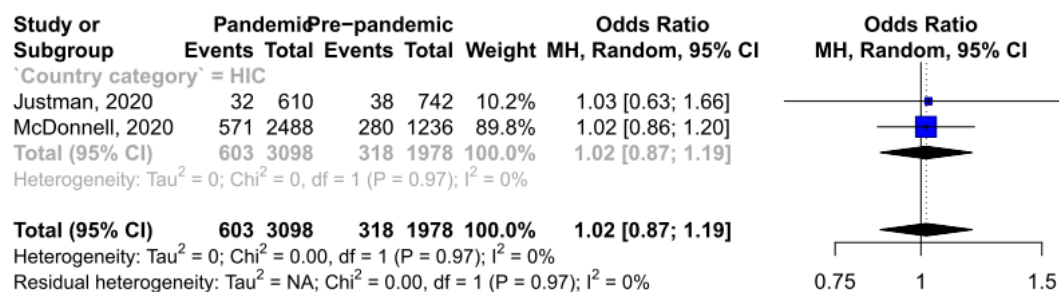


Figure S2g. Forest plot of pooled odds ratio of postpartum depression during the COVID-19 pandemic compared to prior to the pandemic

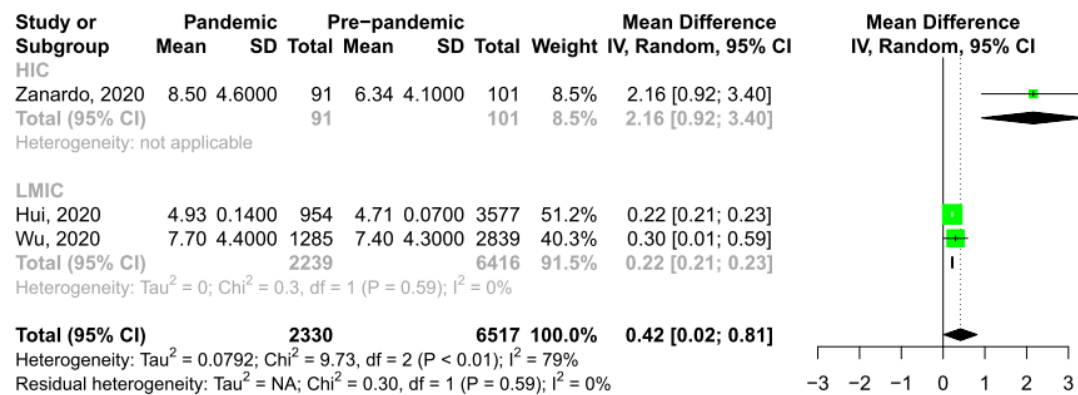


Figure S2h. Forest plot of pooled odds ratio of surgical management of ectopic pregnancy during the COVID-19 pandemic compared to prior to the pandemic

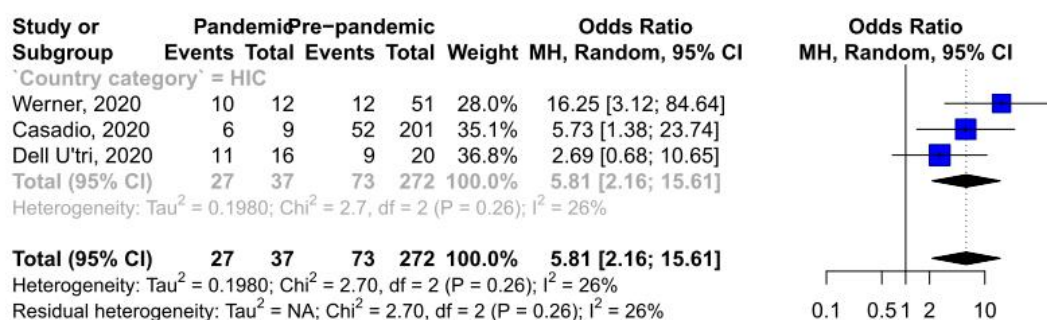


Figure S2i. Forest plot of pooled odds ratio of vaginal delivery during the COVID-19 pandemic compared to prior to the pandemic

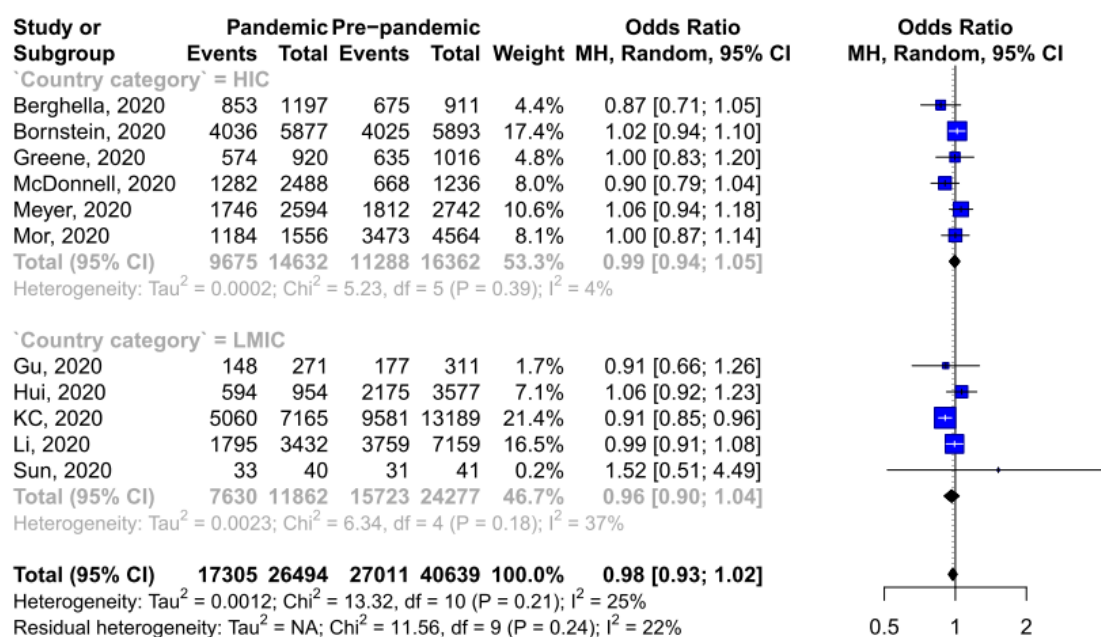


Figure S2j. Forest plot of pooled odds ratio of caesarean delivery during the COVID-19 pandemic compared to prior to the pandemic

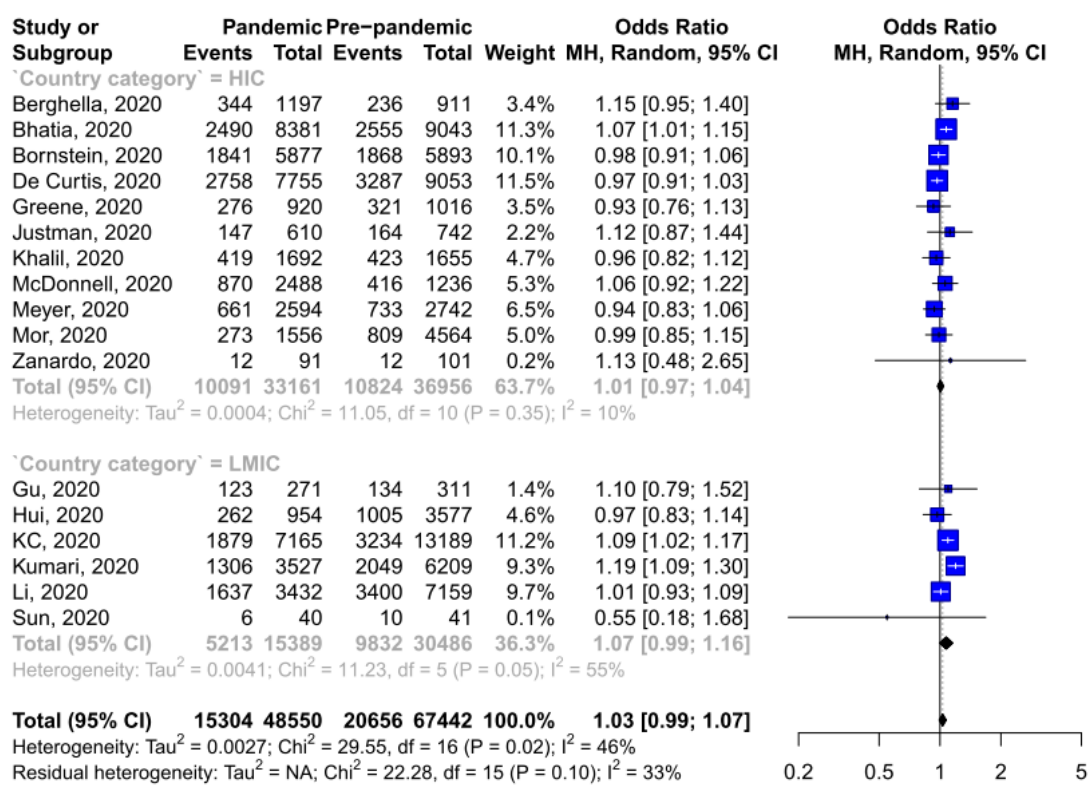


Figure S2k. Forest plot of pooled odds ratio of instrumental delivery during the COVID-19 pandemic compared to prior to the pandemic

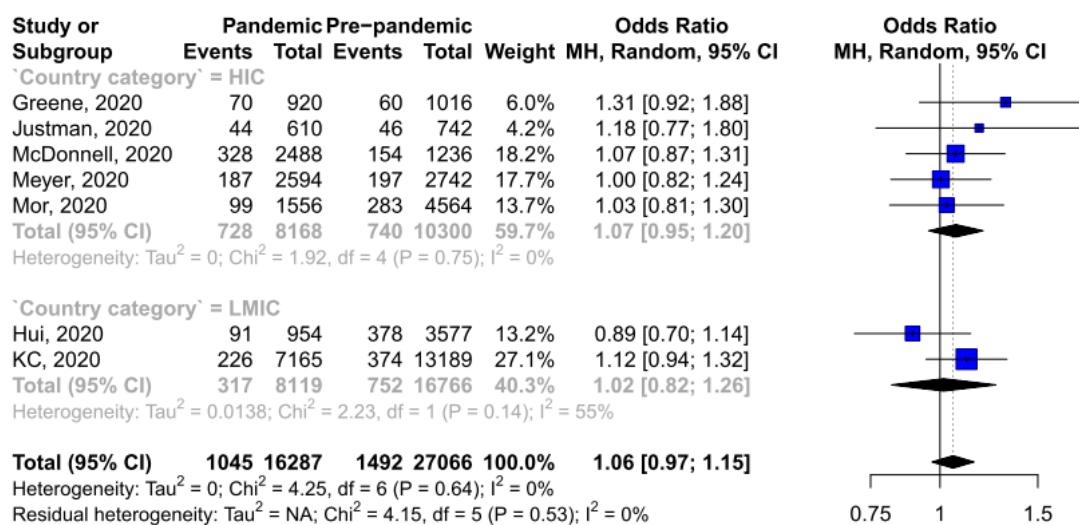


Figure S2I. Forest plot of pooled odds ratio of induction of labour during the COVID-19 pandemic compared to prior to the pandemic

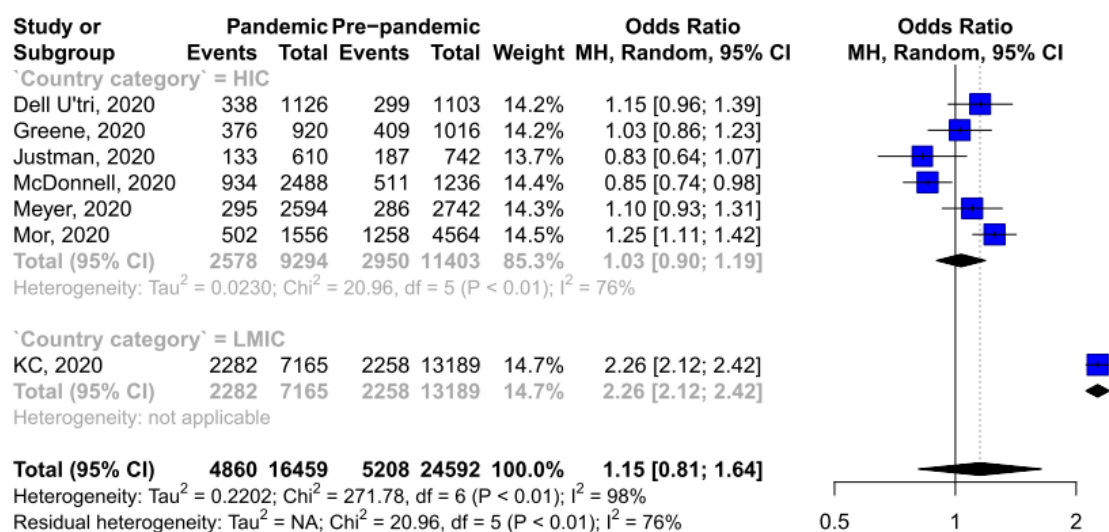


Figure S2m. Forest plot of pooled odds ratio of preterm birth prior to 37 weeks' gestation during the COVID-19 pandemic compared to prior to the pandemic

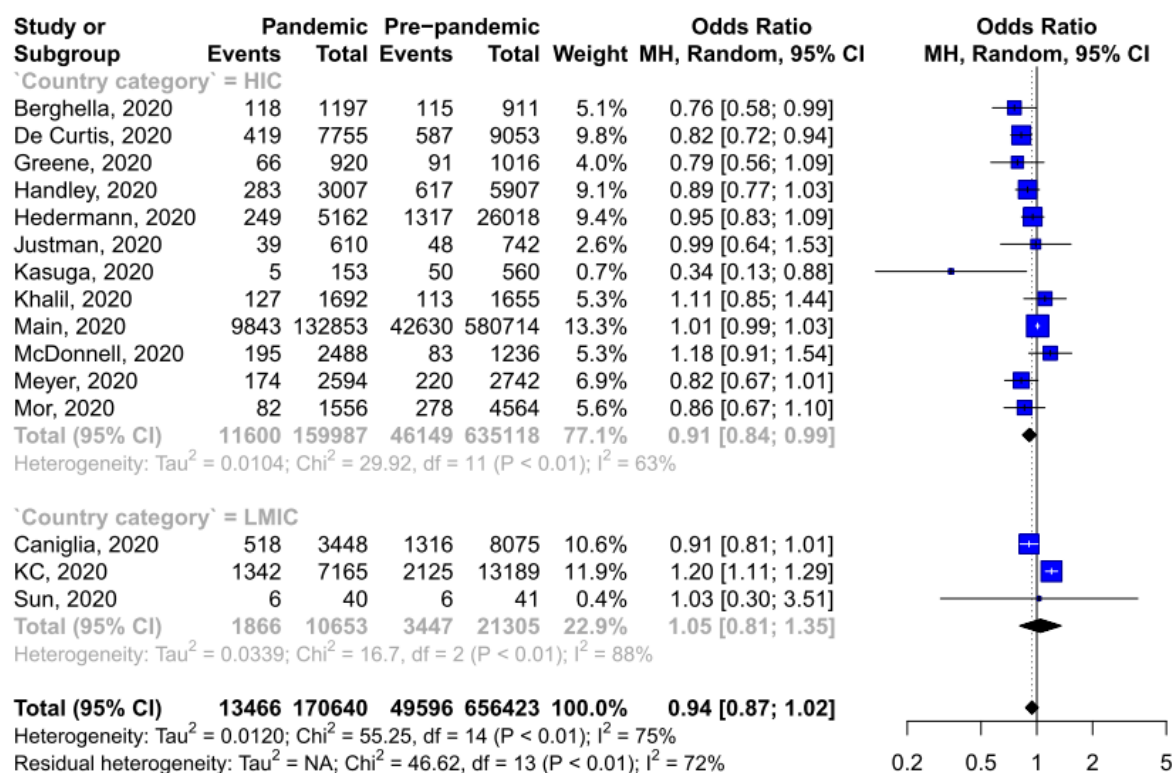


Figure S2n. Forest plot of pooled odds ratio of preterm birth prior to 34 weeks' gestation during the COVID-19 pandemic compared to prior to the pandemic

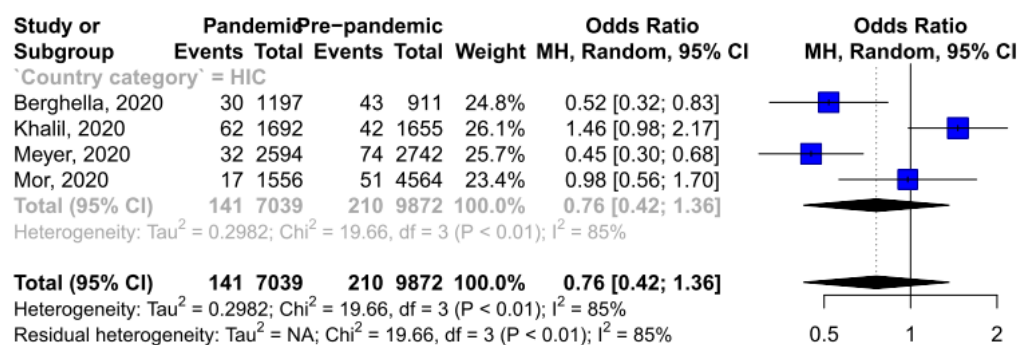


Figure S2o. Forest plot of pooled odds ratio of preterm birth prior to 32 weeks' gestation during the COVID-19 pandemic compared to prior to the pandemic

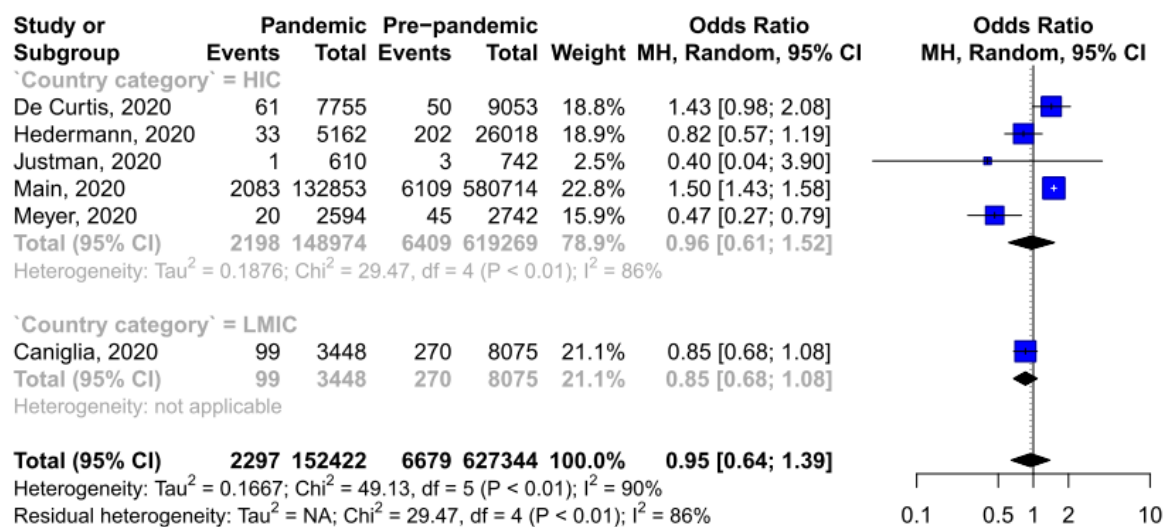


Figure S2p. Forest plot of pooled odds ratio of preterm birth prior to 28 weeks' gestation during the COVID-19 pandemic compared to prior to the pandemic

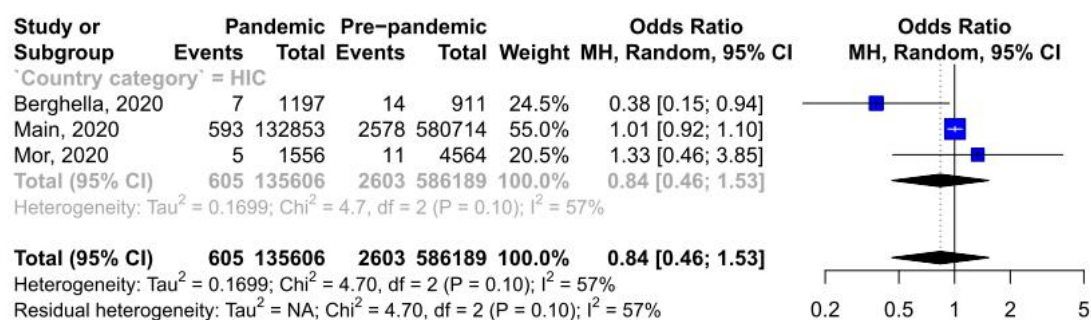


Figure S2q. Forest plot of pooled odds ratio of iatrogenic preterm birth during the COVID-19 pandemic compared to prior to the pandemic

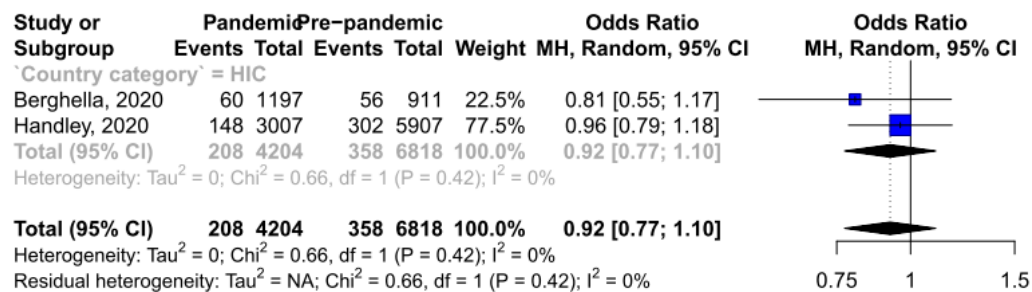


Figure S2r. Forest plot of pooled odds ratio of spontaneous preterm birth during the COVID-19 pandemic compared to prior to the pandemic

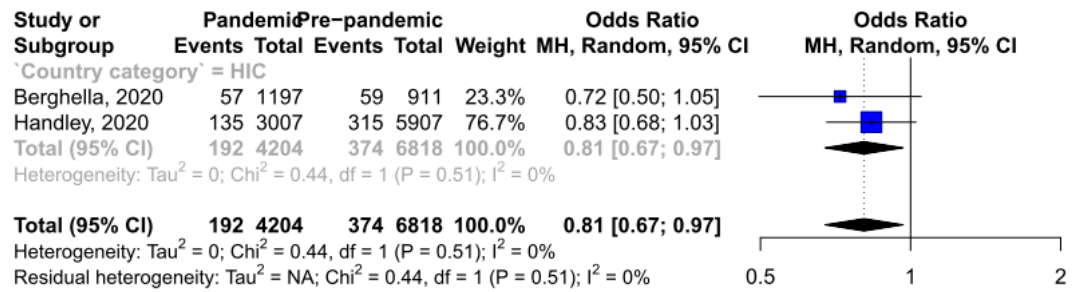


Figure S2s. Forest plot of pooled odds ratio of birthweight <2500g during the COVID-19 pandemic compared to prior to the pandemic

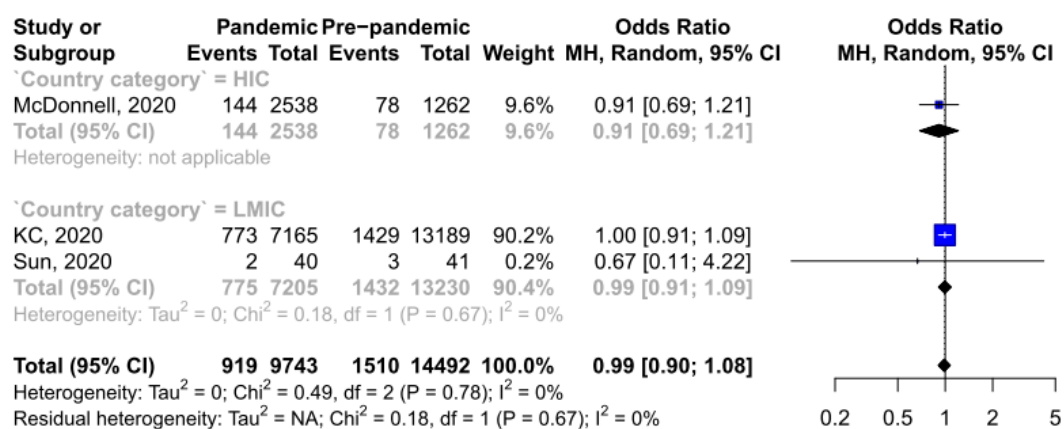


Figure S2t. Forest plot of pooled odds ratio of neonatal intensive care unit (NICU) admission during the COVID-19 pandemic compared to prior to the pandemic

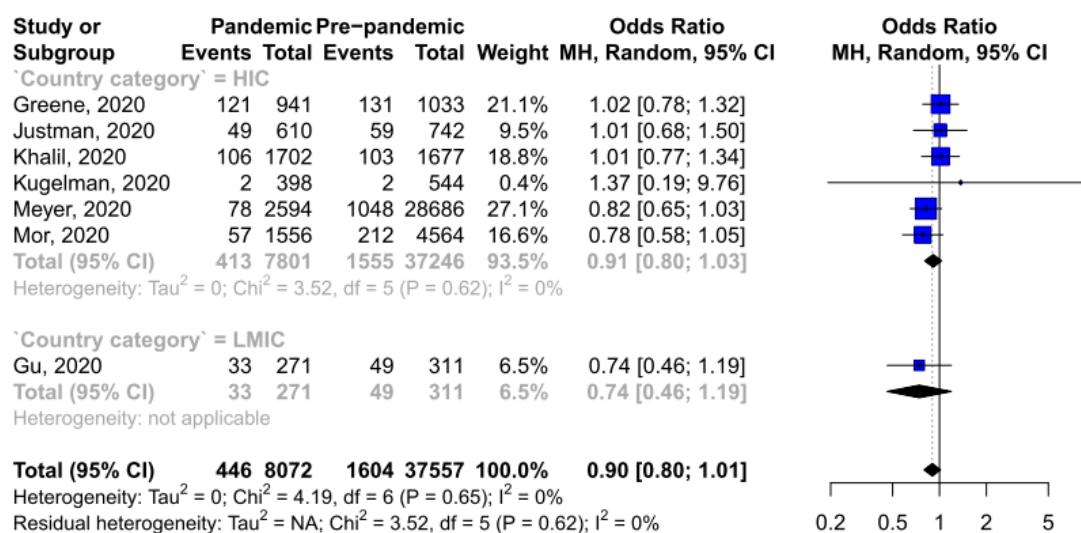


Figure S2u. Forest plot of pooled odds ratio of Apgar scores less than 7 at 5 minutes during the COVID-19 pandemic compared to prior to the pandemic

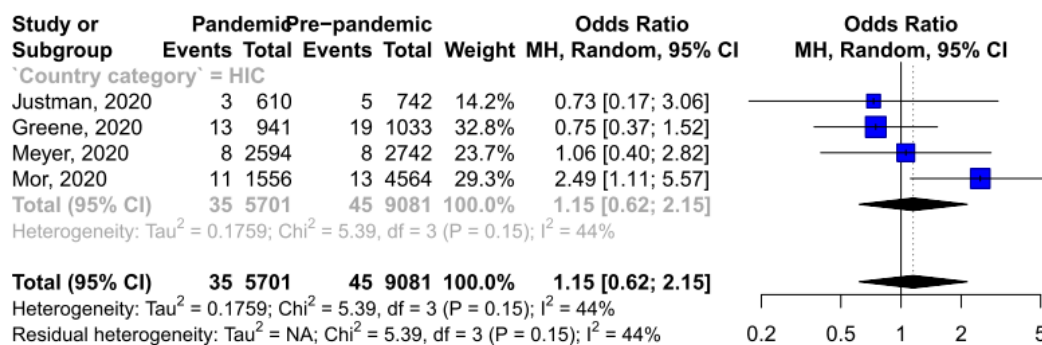


Figure S3. Funnel plot for studies reporting on vaginal delivery. Funnel plot asymmetry test did not show a significant publication bias effect ($P=0.53$)

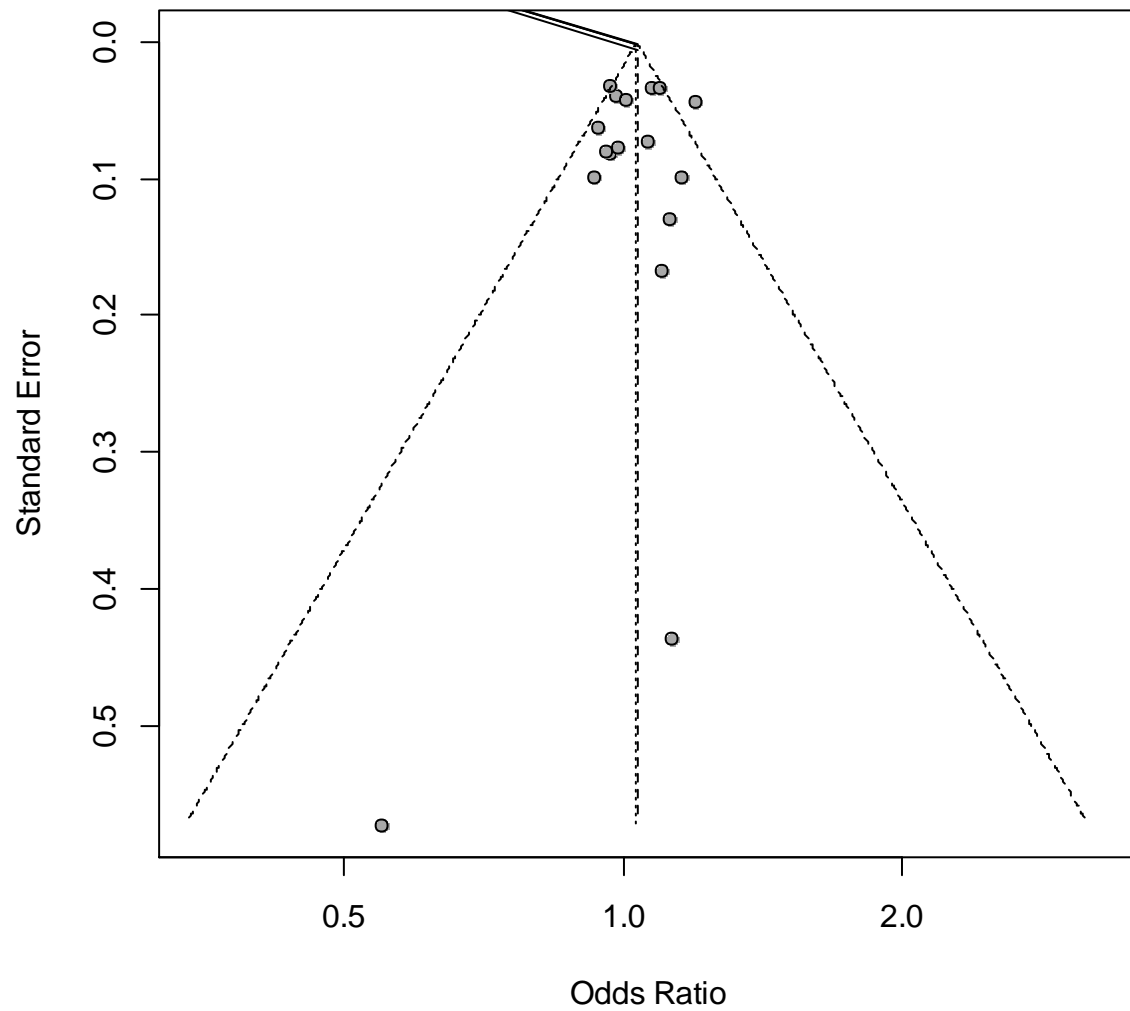


Figure S4. Funnel plot for studies reporting on caesarean delivery. Funnel plot asymmetry test did not show a significant publication bias effect ($P=0.61$)

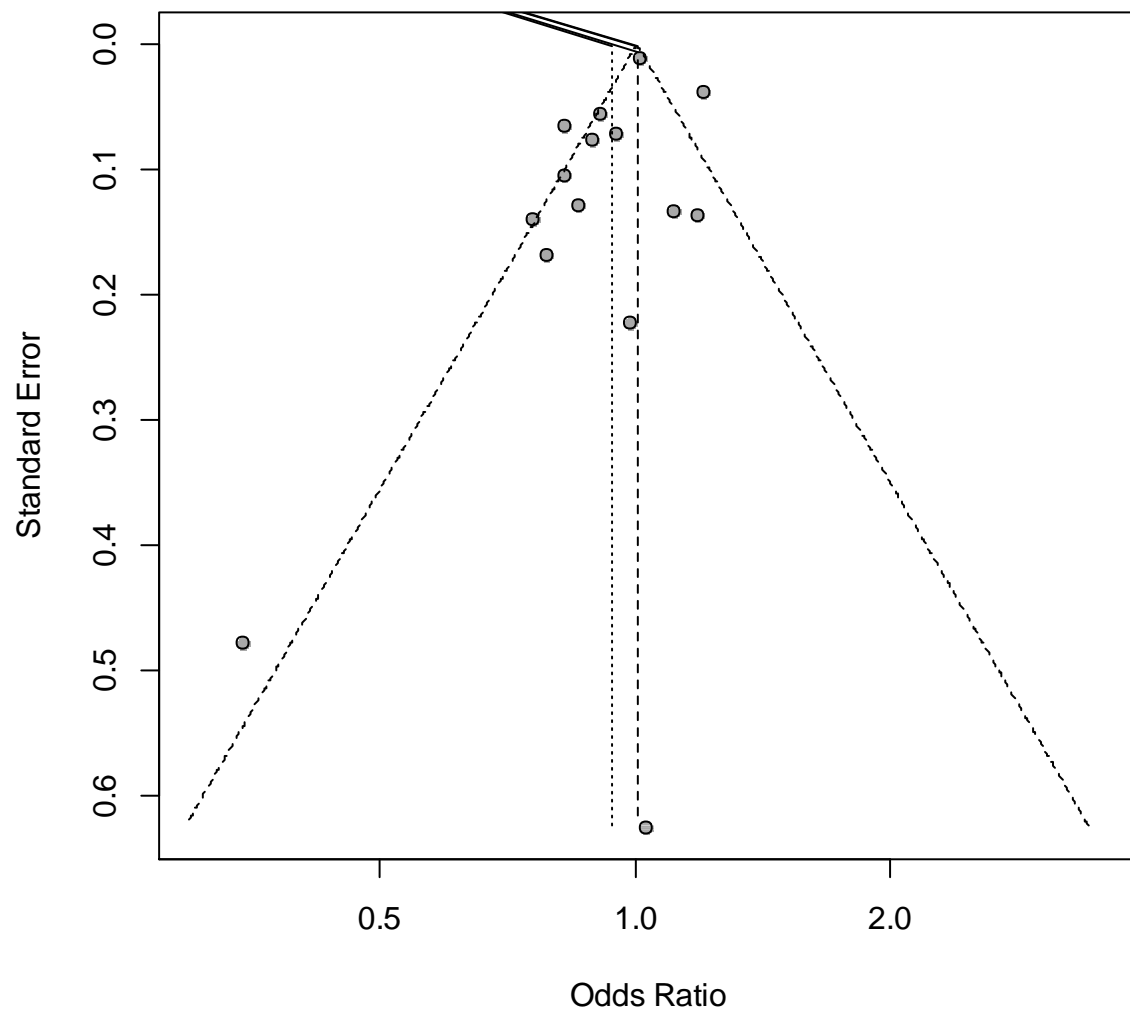


Figure S5. Funnel plot for studies reporting on preterm birth below 37 weeks' gestation. Funnel plot asymmetry test did not show a significant publication bias effect ($P=0.13$)

